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**Knowledge and Attitudes  
Concerning Civil Defense among Residents  
of the  
Washington Metropolitan Area,  
August 1958**

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by

John S. Edelsberg

Robert C. Ellickson

Donald L. Kripke

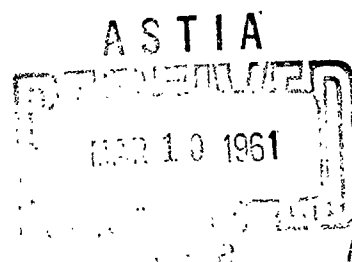
Loughlin F. McHugh

Hugh B. Price

Ann M. Singleterry

Jean G. Taylor

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**OPERATIONS RESEARCH OFFICE**

**THE JOHNS HOPKINS UNIVERSITY    BETHESDA, MARYLAND**

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**THE JOHNS HOPKINS UNIVERSITY    BETHESDA, MARYLAND**

Published  
September 1959  
Second Printing  
February 1960

by  
The Johns Hopkins University  
OPERATIONS RESEARCH OFFICE  
6935 Arlington Road  
Bethesda, Md.

## **ACKNOWLEDGMENTS**

**The authors wish to express their appreciation to those residents of the Washington area who cooperated with the interviewers, thereby making this study possible. Thanks are also due to the members of the Operations Research Office staff who cooperated in the initial administration of the survey schedule and offered helpful suggestions on the content and phrasing of questions.**



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## **SUMMARY**

### **PROBLEM**

To determine for the Washington area the present state of the public's preparedness for an enemy attack and its willingness to take protective measures.

### **FACTS**

An informed public is better equipped to protect itself from the effects of a thermonuclear weapon and probably has a greater chance of surviving an enemy attack than an uninformed public. Some European countries are making concerted efforts to train their inhabitants; others are emphasizing construction and use of underground shelters. West Germany, Sweden, Switzerland, and Luxembourg have sizable shelter construction and civil defense training programs.

Russia appears not only to have built shelters in large cities under the guise of subways but also to have mobilized the population into what might be described as a civilian reserve army for action in the event of an attack. By 1957 about 40 million Russians had been trained in basic civil defense measures. In 1958 every Soviet citizen was required to take a 22-hr training course in civil defense. Today there is a mass civil defense educational program underway. Since 1957 a 1-hr film on atomic warfare has been shown throughout Russia—over TV, in the theaters, and at collective farms. It is interesting to note that in the film the populace is being herded into underground shelters.

In the US the Federal Civil Defense Administration (FCDA) was created by the Federal Civil Defense Act of 1950, Public Law 920, passed January 12, 1951, by the 81st Congress. This office was merged with the Office of Defense Mobilization in 1958 and is now known as the Office of Civil and Defense Mobilization (OCDM).

The efforts of the civil defense agencies have been largely those of training key people, improving the warning system, encouraging local survival plans, stockpiling strategic materials and emergency equipment, and pursuing a research and development program on shelter types, warning devices, and radiological detection devices. Local civil defense organizations are autonomous; OCDM acts in an advisory capacity. County and city organizations are accountable to their respective states; the states are free, within quite wide bounds, to pursue their programs.

Efforts to reach the public have been made through courses, publications, and mass media, e.g., radio, TV, and newspapers. In FY56 FCDA distributed and sold over 145 million copies of publications dealing with various aspects of civil defense. A large part of these were manuals, bulletins, and handbooks for use by civil defense officials and for training leaders:

By June 1957 about 15,000 persons had received instruction in the 65 training courses conducted by FCDA. Local civil defense courses are given that are not accounted for in this figure, e.g., Montgomery County graduated 300 persons during 1957-1958 from an adult-education civil defense class. Added together throughout the country, those taking such local courses would undoubtedly represent only a small percentage of the population.

## DISCUSSION

Washington, D.C., as the nation's capital, might well be assumed to have a more informed and prepared public. Sixteen percent of the metropolitan-area residents are employed by the federal government; they might be expected to be better informed about and more motivated to take protective measures.

To determine the status of the public's knowledge of bomb effects and protective measures (those that have been taken or those the public is willing to take), a survey was conducted in the Washington area. The general attitude toward the threat of war and the purpose of civil defense was also investigated in relation to the public's state of preparedness.

Of 451 addresses selected at random in the Washington area, residents at 322 could be located and were willing to cooperate by being interviewed. The results are accurate to within approximately 5 percent —sufficient accuracy for the purposes of this study.

The results of the survey are given in detail in the body of this paper; actual tabulations and cross correlations of individual questions are given in App A.

Briefly, only about 1 out of 10 persons sees better than an even chance of another war occurring; only 4 out of 10 see any chance of it occurring in the next 20 years. Regardless of the group's feeling about the imminence of war, the majority feels that if there were another war, Washington would be attacked, the enemy would succeed in delivering a weapon, and the population's chances of surviving would be poor.

The effects of nuclear weapons are not well known. Similarly, knowledge of protective measures is not widespread. Almost no families have taken any measures to protect themselves. Especially poor is the public's knowledge of warning signals and the use of the radio for information. In general, the better informed are the younger (under 45) and the better educated members of the population.

The public does seem willing to take measures to protect itself. About one-half of the persons surveyed indicated a willingness to purchase a home warning device, about one-fourth of those who have space would build a \$100 do-it-yourself shelter, and one-fifth would buy a radiation detection device.

Many of the people surveyed are willing to take a civil defense course and a first-aid course. There is general support of a compulsory work program of 1 hr per week in civil defense and of a federally financed shelter program that would require increased taxes.

The Washington residents expressed a desire for more information on civil defense and measures of protection. Information has generally been received through pamphlets, TV, and radio in the past. These media, as well as courses and personal contact, are favored as media for civil defense information.

The public favors the purpose and organizations of civil defense. Knowledge of local civil defense office activities is generally lacking but an increased effort by civil defense is generally favored.

## CONCLUSIONS

1. The Washington-area population recognizes that a nuclear attack on the city would be disastrous but does not consider such an attack imminent.

2. In general the public's knowledge of protective measures for the family in the event of a nuclear attack is inadequate; few can name more than one protective measure that should be taken.

3. The public has not made any preparation for protection against the effects of a nuclear attack although some expressed a willingness to provide themselves with measures of protection.

4. The public supports the purpose of civil defense and expressed a desire for more information on civil defense.

**KNOWLEDGE AND ATTITUDES CONCERNING  
CIVIL DEFENSE AMONG RESIDENTS OF THE  
WASHINGTON METROPOLITAN AREA**

**August 1958**

## INTRODUCTION

To design an effective civil defense public information and education program it is important to determine the probable motivational factors for taking protective measures, the present state of the public's knowledge, and the extent of the public's willingness to make preparations. One readily available method of evaluating these factors is to survey a representative group, using a schedule designed to properly evaluate the primary areas of motivation, knowledge, and willingness. This method, which has been used on a nationwide<sup>1, 2</sup> and local<sup>3</sup> basis, was employed to determine for the greater Washington area answers in the following basic problem areas:

- (a) What is the public's estimate of the threat of war?
- (b) What is the state of the public's knowledge of bomb effects and measures of preparedness? Has the public's opinion of the threat of war affected its knowledge of civil defense measures?
- (c) How willing is the public to take protective measures? Is this willingness related to the perceived war threat?
- (d) What is the public's attitude toward civil defense?

## SURVEY SCHEDULE

The survey schedule,\* designed to be individually administered by an interviewer, consisted of some 46 questions. In addition certain demographic characteristics were determined: sex, age, education, income, race, and house type. The following is a list of topics covered by the questions in the primary problem areas:

- (1) Perceived war threat
  - (a) Imminence of war
  - (b) Likelihood of Washington being attacked
  - (c) Likelihood of a bomb on Washington

\*The 46 questions included in the survey are given in App A with the tabulated responses.



- (d) Mortality radius of H-bomb
  - (e) Estimated chance of survival
- (2) Knowledge of bomb effects and measures of preparedness
- (a) Causes of death
  - (b) Knowledge of warning signals
  - (c) Probable action on attack signal
  - (d) Knowledge of CONELRAD
  - (e) Knowledge of measures of family preparedness
- (3) Willingness to take protective measures
- (a) Protective measures that have been taken
  - (b) Reasons why protective measures have not been taken
  - (c) Willingness to purchase civil defense devices, build home shelters
  - (d) Willingness to take courses and receive information
- (4) Attitude toward civil defense
- (a) Opinion of civil defense
  - (b) Knowledge of local civil defense activity

The schedule was pretested by the five interviewers on a sample of employees of The Johns Hopkins University Operations Research Office.

#### **SAMPLE**

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#### **Geographical Area**

The area covered by the survey is shown in Fig. 1. All of the District of Columbia, Arlington County and Alexandria in Virginia, and portions of Montgomery and Prince Georges Counties in Maryland were included. These areas are indicated on the map in Fig. 1, which shows the Washington standard metropolitan area as defined by the US Census Bureau. In 1958 the population of the standard metropolitan area was estimated to be approximately 2 million.<sup>4</sup> Although the area covered by the survey comprises only 16 percent of the total square miles of the standard metropolitan area, it does include 78 percent of the population.

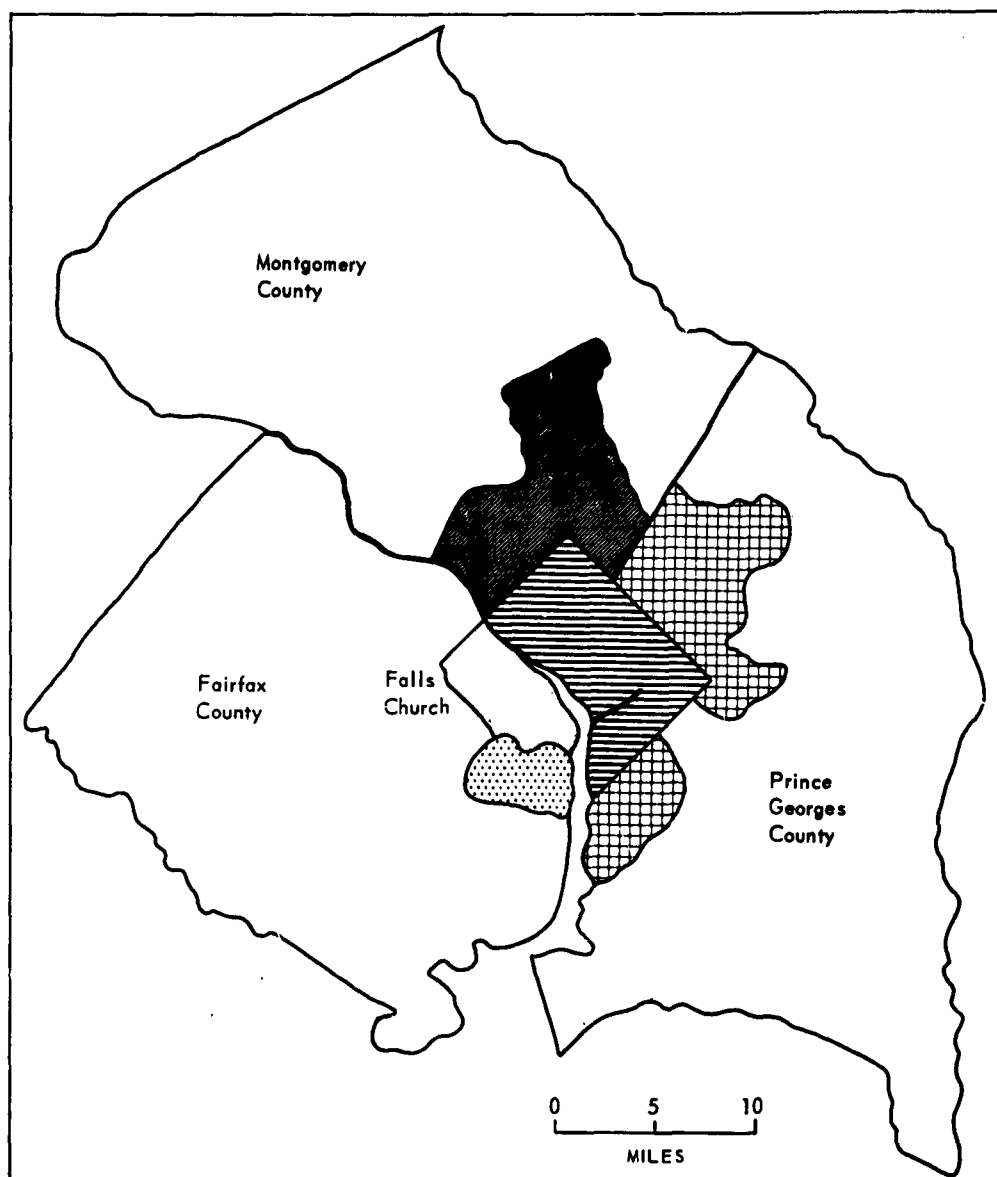







Fig. 1—Portion of Washington Standard Metropolitan Area Covered by Survey

Area	Population, thous		Key of portion sampled	No. in sample	Percent of total sample
	Area	Portion sampled			
District of Columbia	865	865		249	55
Montgomery County	317	232.5		67	15
Prince Georges County	336	208		60	13
Arlington County	169	169		50	11
Alexandria	90	90		25	6
Falls Church	10	0		0	0
Fairfax County	218	0		0	0
Totals	2005	1564.5		451	100

## Size

A sample size of 451 was chosen, which, after allowing for refusals and nonexistent addresses, would yield results accurate to within 5 percent of the true value.<sup>5</sup> The 451 addresses were taken at random from the D. C. and Alexandria city directories and the Arlington, Montgomery, and Prince Georges County directories. The proportion of the sample taken from each of the directories was determined by the percentage of the population of that area included in the total area sampled. Thus 55 percent of the total sample of 451, or 249 addresses, were taken from the D. C. directory; 15 percent, or 67, from the Montgomery County directory; etc. (see table accompanying Fig. 1).

The interviewers conducting the survey also asked the person answering the door to name all residents of the dwelling over 18, and then, using a random number table, picked a resident to be interviewed. When no one was home, the interviewer went to the house on the left.

It should be noted that several factors may have affected the randomness of the sample. In the directories married couples were listed on a single line; unmarried adults, therefore, had a greater chance of being picked. Households where English was not spoken were excluded. In some instances the member of the household picked for interviewing preferred that some other member be interviewed.

## RESPONDENTS VS NONRESPONDENTS

The sample contained 451 addresses. (See Table 1.) Twenty-two of these could not be located and were placed in a "nonexistent" category. Twenty-four percent refused to be interviewed. Although the original sample size was thus reduced by 29 percent to 322 interviews, the distribution of these interviews by areas remained essentially the same as the original sample distribution. Many refusals were caused by the belief that the interviewers were really trying to sell something; this was especially true in Prince Georges County, where University of Maryland students often sell books and magazines. Characteristics of the nonrespondents are shown in Fig. 2; those of respondents in Fig. 3. In general there were no discernible outstanding differences between the groups. Eight out of ten nonrespondents were white; seven out of ten respondents were white. Six out of ten nonrespondents were female; five out of ten respondents were female.

Table 1

**ORIGINAL SAMPLE, RESPONDENTS, NONRESPONDENTS,  
AND NONEXISTENT ADDRESSES, BY AREA**

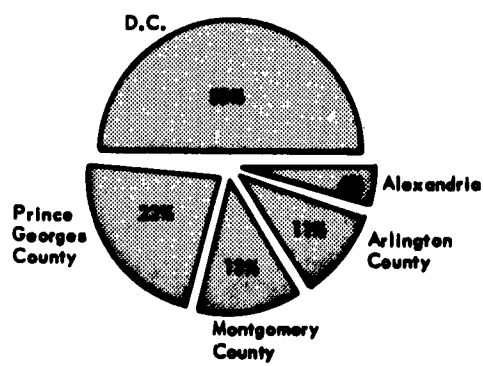
Area	Original sample		Respondents		Non-respondents		Nonexistent addresses	
	No.	%	No.	%	No.	%	No.	%
District of Columbia	249	55	181	56	53	50	15	68
Prince Georges County	60	13	35	11	23	21	2	9
Montgomery County	67	15	51	16	14	13	2	9
Arlington County	50	11	37	11	13	12	0	0
Alexandria	25	6	18	6	4	4	3	14
Total	451	100	322	100	107	100	22	100

### ACCURACY OF RESULTS

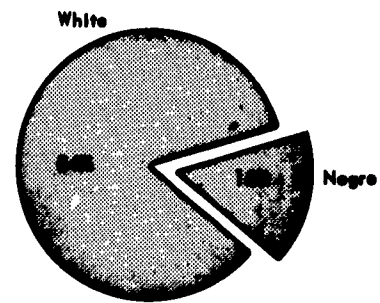
#### Sampling Errors

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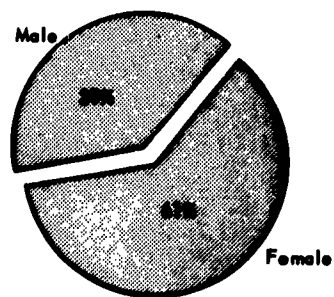
As contrasted with quota sampling, the process used in this survey was probability sampling. In simple, random, probability sampling one does not start with the known census distribution of certain characteristics and locate the sample accordingly; rather, one starts with the whole population of the defined area, and each individual has an equal chance of being chosen. Using this sampling procedure, approximate sampling errors can be determined and the results can be considered accurate within certain stated limits. Table 2 gives the accuracy of the results of the survey of 322 residents in the Washington area. If subsamples are taken the error is increased (e.g., a subsample of 50 increases the error by 3).



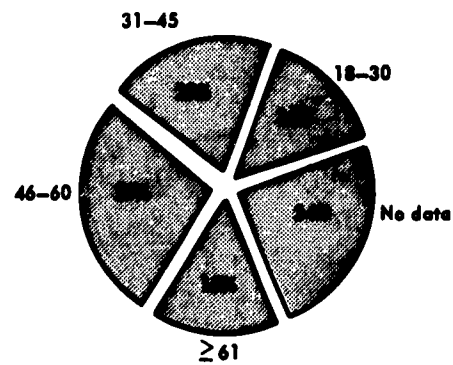
AREA



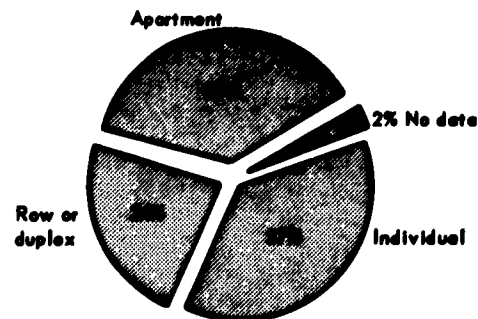
RACE



SEX

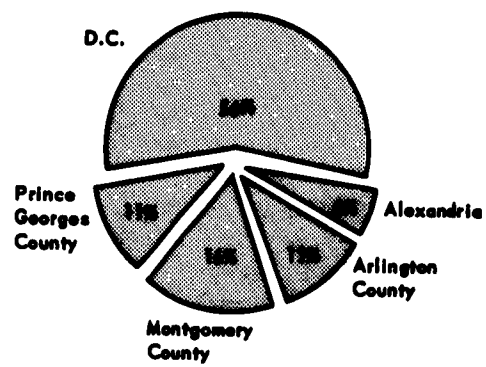


AGE, YEARS

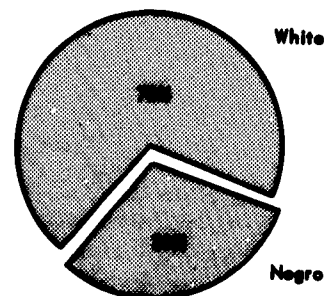


HOUSE TYPE

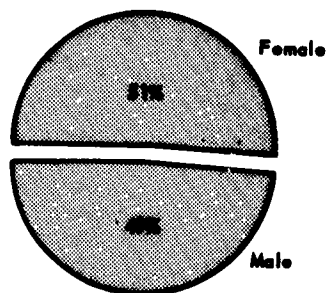
Fig. 2—Characteristics of the 107 Nonrespondents



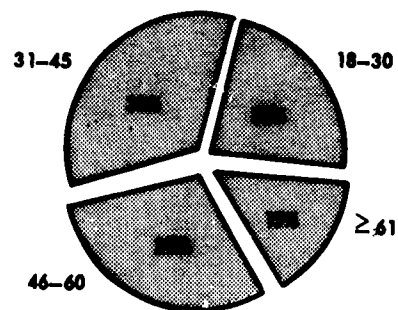
AREA



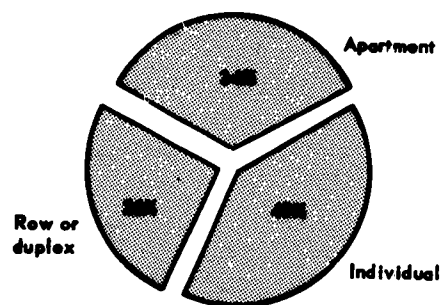
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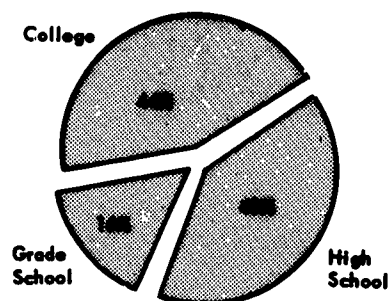
SEX



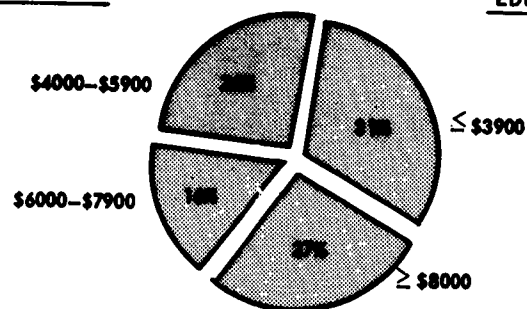
AGE, YEARS



HOUSE TYPE



EDUCATION



YEARLY INCOME

Fig. 3—Characteristics of the 322 Respondents

**Table 2**

**SAMPLING ERRORS**

<b>Sample percent for a sample of 322</b>	<b>Sampling error, %</b>
50-50	5.6
40-60	5.5
30-70	5.1
20-80	4.5
10-90	3.4
5-95	2.4

The chances are 95 in 100 that the true value lies within a range equal to the sample percent, plus or minus the number of percentage points shown in Table 2. It can thus be stated with a high degree of confidence that the results of the survey are within 5 percent of the true value.

**Demographic Characteristics**

Sample distribution by race, sex, education, age, and income is compared with distribution in the total population of the Washington metropolitan area in Tables 3 to 7.

Table 3

**DISTRIBUTION BY RACE IN SAMPLE  
AND IN TOTAL POPULATION**

Race	Sample		Total population, % <sup>a, 6</sup>	
	No.	%	Metropolitan area	Survey area
White	225	70	76	71
Nonwhite	97	30	24	29
Total	322	100	100	100

<sup>a</sup> Here 6 and 6.3 percent nonwhite for Virginia and Maryland areas respectively in standard metropolitan area applied to sample-area population yields estimate of total population of survey area.

Table 4

**DISTRIBUTION BY SEX IN POPULATION  
18 YEARS AND OVER IN SAMPLE  
AND IN TOTAL POPULATION**

Sex	Sample		Total population, % <sup>7</sup>
	No.	%	
Male	157	49	48
Female	165	51	52
Total	322	100	100



Table 5

**EDUCATIONAL ATTAINMENT OF SAMPLE POPULATION  
AND POPULATION 25 YEARS AND OVER IN  
STANDARD METROPOLITAN AREA**

Education	Sample		Metropolitan area, % <sup>a</sup>
	No.	%	
College	142	44	27
High school	129	40	40
Grade school	51	16	28
None	—	—	1
Not reported	—	—	4
Total	322	100	100

Table 6

**DISTRIBUTION BY AGE IN SAMPLE AND  
IN STANDARD METROPOLITAN AREA**

Age, years	Sample		Metropolitan area, % <sup>a</sup>
	No.	%	
18 - 30	76	23	27
31 - 45	106	33	33
46 - 60	92	29	26
61 +	48	15	14
Total	322	100	100

Table 7

**DISTRIBUTION OF INCOME IN SAMPLE AND IN TOTAL  
POPULATION**

Area	Median income, dollars	
	Sample	Total population <sup>8</sup>
District of Columbia	4080	5522
Prince Georges County	6515	6560
Montgomery County	8135	8595
Arlington County	7575	7140
Alexandria	6800	6565

The distributions are comparable for race, sex, and age. There is a higher percentage of people with college education and a lower percentage of those with grade school education in the sample as compared with the total population. Except for the District of Columbia, where the median income of the sample is \$4000 and that of the total population \$5500, the median incomes for the sample are within \$500 of those for the total population of the areas.

The distribution of income, education, and race within the sample is not equal. Three-fourths of those with incomes over \$8000 live in the suburbs, whereas nine-tenths of those with incomes under \$4000 live within the District of Columbia. Similarly 70 percent of those with grade school education live within the District. Members of the suburban population have predominately college or high school education. Ninety-seven percent of the Negro respondents are residents of the District. The relations that exist between any one of these characteristics of the sample and the response to survey questions hold in general for the other characteristics.

## PERCEIVED WAR THREAT

The perceived threat of war is a motivational factor that can result in constructive protective actions. If the threat appears too great, the results of war so devastating as to make protective measures seem futile, then the threat may serve to negatively motivate the population. Generally speaking, however, a concern for war danger should increase the desire for knowledge of and willingness to procure protective measures. A study in 1952 by the Survey Research Center (SRC) showed that as concern over war danger increases so favorable evaluation of civil defense increases.<sup>9</sup> However, the results indicate that regardless of the level of motivation (concern for war danger) or information, willingness to volunteer for civil defense tasks is highest among those with high opinions of civil defense.

The problem of determining what factors prompt individuals to take protective measures and participate in civil defense is indeed a complex one. There are doubtlessly many factors that contribute in varying amounts, e.g., perceived war threat, knowledge of bomb effects, economic considerations, etc. It is obvious, however, that unless a need for measures of survival is seen, no actions will be taken regardless of individual and family considerations. There must be a potential danger; there must also be a chance of surviving it.

A series of questions asked the Washington public were designed to establish public evaluation of the imminence and threat of war. Two out of ten felt that if a world war started it would be likely to occur within the next 5 years. Sixteen percent felt war was 5 years or more away; 13 percent felt it would never occur. One-half of the respondents did not express an opinion (see Table 8).<sup>\*</sup> Thirty percent of those who felt that there would

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\*The 1954 SRC survey includes a similar question (Ref 2, p 56). In general the results showed higher percentages in each time period because 30 compared with 48 percent in the Washington survey fell in the "Don't know" category. The one exception is that 2 percent of the SRC respondents saw war likely in the next 6 months, whereas 5 percent in this survey stated they felt war was likely within 6 months. This may be partly accounted for by the fact that the Washington survey was done during a period of about 2 weeks to 1 month after the July 1958 Middle East crisis.

Table 8

## IMMINENCE OF WAR

(Q. If a world war comes, when do you think it is likely to start?)

Response	Respondents, %
Less than 6 months	5
6 months to 2 years	10
2 years to 5 years	8
5 years to 10 years	8
10 years to 20 years	7
Over 20 years	1
Never	13
Don't know	48
Total	100

be another war gave the chances of its occurring as better than 50 percent. This represents 11 percent of the sample.\* There has been a steady decline in the number of people who see a better than 50 percent chance of another war. In 1950 approximately 70 percent felt there was better than an even chance that there would be another world war; in 1952 this dropped to 60 percent; and in 1954 it dropped still farther to 47 percent. (Ref 2, p 50). In this Washington survey only approximately one out of ten persons sees better than an even chance for another war.

Those with college education expressed an opinion more frequently and felt war was more imminent than those with high school or grade school education. There was no difference in response between age groups except for those over 60 years—one-quarter of this group felt there would be no war, and over one-half expressed no opinion.

\*Supporting tables of survey results appear in App A.

Asked specifically how likely world war in 2 years or less was, one out of four felt the chances were fifty-fifty or better, one out of ten felt there was better than an even chance. One-half felt there would be no war in 2 years or thought the chances were only slight (see Fig. 4). There was a tendency for the residents of D. C. proper to feel that there was more likelihood of war in 2 years than for residents of outlying areas.

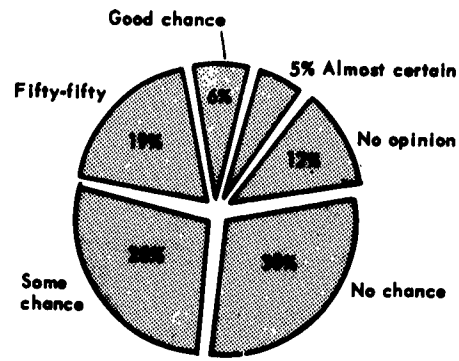
Regardless of the opinion held concerning the imminence of war, 6 out of 10 respondents said that in the event of a world war there was a good chance the Washington area would be a target (Fig. 4 and Table 9). This compares with a nationwide survey in 1953 in which 50 percent of the people in cities of over 500,000 (including Washington) felt there was a good chance their city would be a target.<sup>10</sup>

Table 9

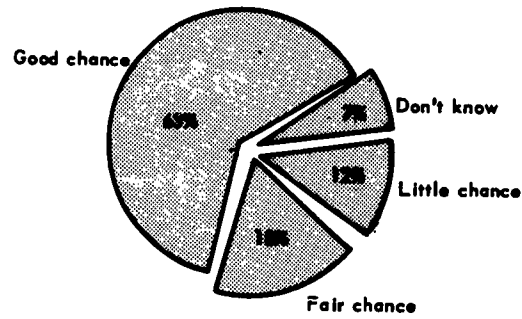
LIKELIHOOD OF WASHINGTON BEING ATTACKED  
RELATED TO LIKELIHOOD OF WAR IN 2  
YEARS

Chance of war in 2 years	Chance of Washington being attacked				
	Good	Fair	Poor	Don't know	Total
	Respondents, %				
Better than 50% (N = 35) <sup>a</sup>	57	23	14	6	100
Fifty-fifty (N = 62)	58	26	13	3	100
Less than 50% (N = 185)	66	18	12	4	100
No opinion (N = 40)	60	5	8	27	100

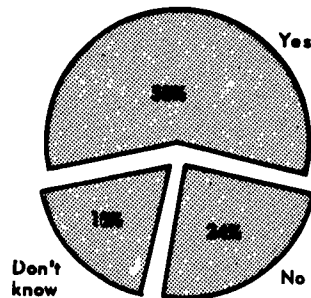
<sup>a</sup> N = number of respondents.



LIKELIHOOD OF WAR WITHIN 2 YEARS



LIKELIHOOD OF D. C. BEING ATTACKED



WOULD ENEMY SUCCEED IN DELIVERING  
A-BOMB ON D. C.?

Fig. 4—Imminence and Threat of War

Those under 60 years of age and those with college education tended to express more frequently the opinion that Washington would be a target. Furthermore, the chance of Washington being a target was seen as good more often by residents of outlying areas (70 percent) than by residents of D. C. proper (57 percent).

The effectiveness of the active defense measures is seen as less than perfect by the public. More than one-half (58 percent) of the respondents said that if Washington were attacked at the present time, the enemy would succeed in bombing the city (Fig. 4). Fourteen percent of the public expressed the opinions that there was a 50 percent or better chance of war in 2 years, that Washington would be a target, and that the enemy would succeed in dropping a bomb on the city. Regardless, though, of how likely war seems within the next 2 years, the majority of those who feel there is a good chance of Washington being attacked feel that the enemy will succeed in bombing Washington (see Table 10).

Table 10

LIKELIHOOD OF BOMB ON WASHINGTON RELATED TO  
LIKELIHOOD OF WAR IN 2 YEARS

(Among respondents who feel good chance Washington would  
be attacked)

Chance of war in 2 years	Bomb on Washington			
	Yes	No	Don't know	Total
	Respondents, %			
Better than 50% (N = 20) <sup>a</sup>	80	10	10	100
Fifty-fifty (N = 36)	78	14	8	100
Less than 50% (N = 122)	76	16	8	100
Don't know (N = 24)	46	12	42	100

<sup>a</sup> N = number of respondents.

This feeling that Washington is vulnerable is held regardless of age, but more frequently by college educated persons and residents of outlying areas. Three out of ten of the residents of D. C. proper feel that the enemy would not succeed in dropping a bomb.

### ESTIMATE OF WEAPONS EFFECTS

The public does not see its chances of surviving an attack as good (see Fig. 5). Eight persons out of ten believe that their survival chances are 50 percent or less. Only 12 percent see their survival chances as good or excellent. Seven out of ten of those people who believe there is a good chance of Washington being attacked and of a bomb being dropped also believe their chances of survival are less than 50 percent (Table 11).

Table 11

### CHANCE OF SURVIVAL RELATED TO LIKELIHOOD OF WASHINGTON BEING ATTACKED AND A BOMB BEING DROPPED

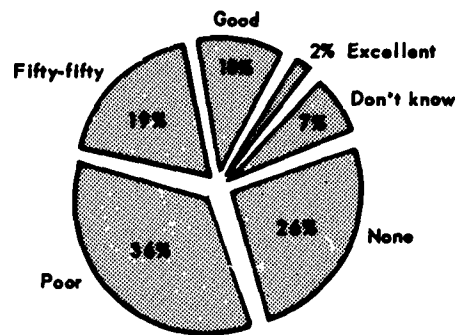
(Among respondents who believe a bomb would be dropped)

Chance Washing- ton will be attacked	Chance of survival				
	Better than 50%	Fifty- fifty	Less than 50%	Don't know	Total
	Respondents, %				
Good (N = 147) <sup>a</sup>	10	19	68	3	100
Fair (N = 22)	9	32	54	5	100
Poor (N = 14)	21	14	57	7	100

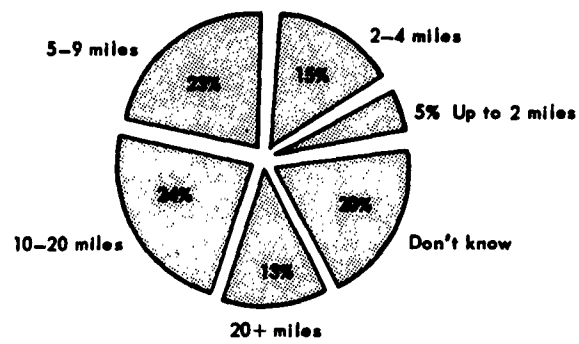
<sup>a</sup> N = number of respondents.

This represents approximately one-third of the public. Six percent thought that chances of a war in the next 2 years were good or almost certain, that there was a good chance of Washington being attacked, and that the likelihood of their surviving was 50 percent or less. The majority, 41 percent,





CHANCES OF SURVIVING ATTACK IF AT HOME



RADIUS OF TOTAL DEATHS FROM H-BOMB  
ON D.C. TODAY

Fig. 5—Survival Chances and H-Bomb Mortality Radius

felt that there was a good chance Washington would be a target and that likelihood of survival was 50 percent or less but felt that war in the next 2 years was unlikely. The destructive power of an H-bomb attack is not generally underestimated, and there is not even much doubt about Washington being attacked in the event of a world war; the critical factor is the likelihood of war in the near future (2 years or less).

The public's estimate of survival chance is related to its estimate of the mortality radius of the H-bomb. Eight out of ten of those persons who believe that almost everybody will be killed within 20 miles from where the bomb falls also estimate their survival chances as less than 50 percent; five out of ten who believe the mortality radius is within 5 miles of the burst point see a 50 percent or better chance of survival (Table 12).

Table 12

CHANCE OF SURVIVAL RELATED TO ESTIMATE OF  
H-BOMB MORTALITY RADIUS

Estimate of H-bomb mortality radius	Chance of survival				
	Better than 50%	Fifty- fifty	Less than 50%	Don't know	Total
	Respondents, %				
Up to 5 miles (N = 65) <sup>a</sup>	20	28	51	1	100
5-10 miles (N = 74)	11	24	64	1	100
10-20 miles (N = 77)	10	19	71	0	100
Over 20 miles (N = 43)	7	12	81	0	100
Don't know (N = 63)	11	8	49	32	100

<sup>a</sup> N = number of respondents.

Six out of ten persons expect the mortality radius of the H-bomb to extend 5 miles or more beyond the burst point. The 20 percent who said the mortality radius was less than 5 miles underestimated the lethal effects of the H-bomb, which would currently probably be delivered by manned bomber. Under the conditions today, as specified by the question (with no special shelter), almost everybody within 6 to 10 miles of the burst point of a 10-MT weapon would be killed. Secondary effects from fires might cause extensive destruction within a radius of some 20 miles. In general, though, destruction from an H-bomb delivered today that would "kill almost everybody" would be confined to from 6 to 10 miles. Four out of ten people overestimated the mortality radius (10 miles or more); these were generally the younger residents of the area. This tendency to overestimate the mortality radius of the H-bomb was also found in the 1954 nationwide survey (Ref 2, p 64). Two out of ten persons said they did not know what the mortality radius would be. About one-quarter of the people believed the mortality radius would be from 5 to 10 miles, the most probable figure.

Radiation and blast were considered the most destructive effects of an atomic attack (Fig. 6). Four out of 10 persons listed radiation as a chief cause of death; when specifically asked if they had heard or read anything about fallout, three-quarters indicated they had. The younger and the more educated showed more knowledge of bomb effects and had more often heard of fallout. Those who estimated the mortality radius of the H-bomb as over 20 miles more often gave radiation as a cause of death than either blast or fires. Those who confined the mortality radius to 5 miles gave blast and radiation as causes of death with equal frequency. There was no difference in the frequency with which fires were mentioned.

Too few people (12 percent) recognized the danger of fire and burns from the initial thermal pulse and secondary fires. Third-degree burns can be experienced at a distance of some 20 miles from the point of burst of a 10-MT weapon. At this same distance the blast effect (1 lb/sq in) would be minor—broken windows, furniture, etc.—and the initial radiation minor. The phenomena of conflagration and fire storms are not completely understood, but there is a high probability that uncontrollable fires from a multiple-bomb attack would extend in a radius of from 10 to 15 miles from the center of a metropolitan area.

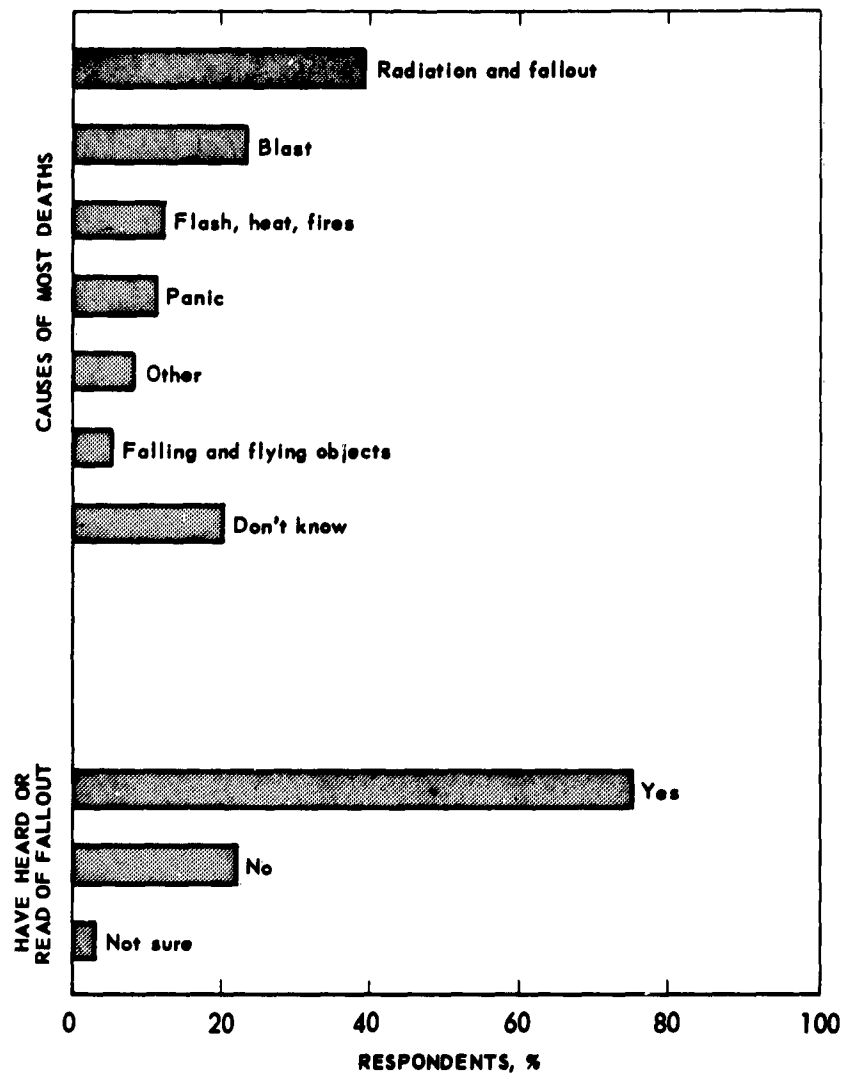


Fig. 6—Knowledge of Bomb Effects

Those who see a good likelihood of a war in the near future, feel that Washington would be attacked, believe that a bomb would be dropped, and/or that their chances of survival would be poor tend to know more about the causes of death and emphasize the danger of radiation. Those who do not express opinions on the threat and imminence of war more frequently do not know what would cause the deaths in the event of an attack. Similarly those who have not heard or read about fallout tend not to be able to name any causes of death.

## KNOWLEDGE OF PROTECTIVE AND SURVIVAL MEASURES

In 1952 a nationwide survey showed that 63 percent of the population had some information about what should be done to protect oneself in the event of an attack. By 1954 this percentage had increased to 78 (Ref 2, p 79). The information was generally confined to realizing that basements or cellars could be used as shelters. Hardly anyone reported having taken definite measures for protection other than having at hand normal household preparation for accidents—such as first-aid kits.

In the Washington-area survey 72 percent of the people said they had heard or read something about what should be done now for the family's safety in case of an attack; few could name more than one protective measure that should be taken. Those in the high income and education bracket more frequently said they knew some preparation measures. Four out of five suburban residents as contrasted to three out of five D. C. residents felt they knew some protective measures. It is of interest to note that those who feel that there is a greater likelihood of war within 2 years or that the enemy will succeed in dropping a bomb on Washington tend to have heard more frequently of preparation measures.

Over one-half of the respondents stated that they had heard one should stock food, two out of ten mentioned preparing a shelter area, and one out of ten mentioned building a shelter. There is a tendency for the higher-income and more educated groups to have heard more frequently of shelter measures. Only 1 percent mentioned knowledge of evacuation routes as a preparation measure. Those who stated they had taken a measure to protect their family numbered only 17 percent. Of those who could actually name a measure of preparation only 24 percent had actually taken any measure for protection. As can be seen in Fig. 7, these are generally

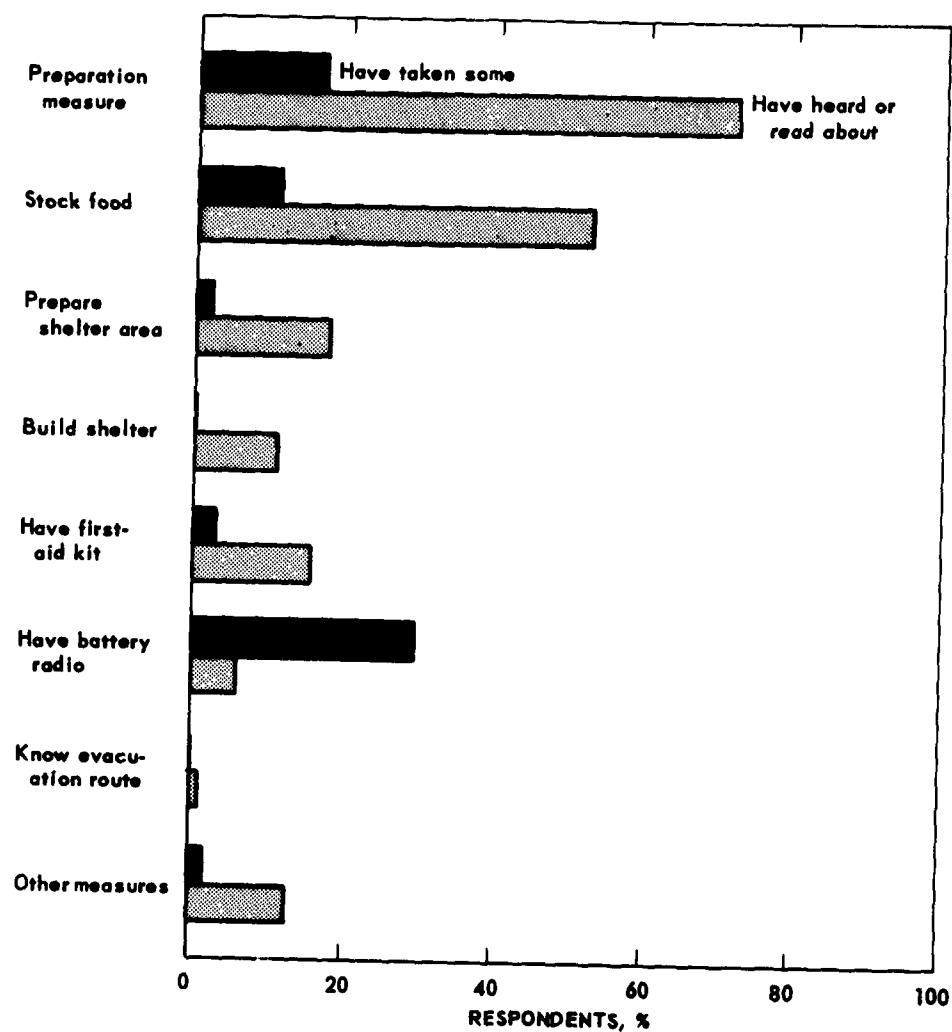


Fig. 7—Preparation Measures

Have taken the measure
  Have heard or read about the measure

\*Question specifically asked if battery-operated radio was owned.

normal household preparations, e.g., weekly grocery buying, a first-aid kit, etc. About one-third of the population, when specifically asked, said they did have a battery-operated radio.

In general the public's knowledge of preparation measures is inadequate, and in effect no protective measures have been taken. The recently distributed OCDM "Handbook for Emergencies"<sup>11</sup> lists three phases of family preparedness: (a) home shelter, (b) disaster know-how, and (c) first aid. Home-shelter measures include selecting and stocking a safe area in the home. This measure has been taken by only 2 percent of the public in the Washington area. The status of "disaster know-how" was not determined in this survey, but it is probably comparable to the public's knowledge of first aid. Although one-half of the respondents said they had taken a first-aid course, and 15 percent had taken it within the last 5 years, only 2 out of 10 said they knew the proper treatment for serious burns. Actually, only 3 percent of the total survey group could correctly state the treatment for serious burns.

Two out of five of those who had heard of protective measures said they had not taken any protective measures because the threat of enemy attack was not great enough; conversely, one out of five felt protective measures were useless because the threat and consequences were too great. Others mentioned a general feeling of complacency, lack of a government plan, and lack of space.

There apparently is no consistency between reasons given for not taking preparation measures and the perceived threat of war. Those who had seen Washington as a target or the enemy succeeding in dropping a bomb on the city did not give as the reason for lack of preparation measures "too great a threat" any more frequently than they gave "lack of threat."

#### Warning Signals and CONELRAD

In the event of an attack general public warning will be given by siren signals, and more specific information and instructions will be given over the radio on two wave lengths only. The two siren warning signals are a long steady blast (ALERT), which indicates that conditions are such that an enemy attack might take place, and a 3-min warbling tone on sirens (TAKE COVER), signifying take cover immediately in the best available shelter. These signals have been publicized

through pamphlets, posters, and practice siren tests. Probably the most widely publicized aspect of civil defense is that the warning of an enemy attack will be given by sirens, which may account for seven out of ten respondents saying they know the warning signal. Those with more education and the suburban residents more often tended to state they knew what the warning signals were.

When respondents were asked to describe the nature of the warning signals it was evident that a good deal of confusion and misinformation exists among the population. Only one-fourth of the sample could correctly identify at least one of the warning signals (either ALERT or TAKE COVER); 16 percent did not even know that sirens provide the warning signal (see Fig. 8). These figures are approximately the same as those in the 1954 national study (Ref 2, p 87); i.e., in cities over 50,000, only 27 percent could identify at least one signal.

The actual coverage of the siren system has not been well determined. Although the Washington metropolitan area will have one of the best warning systems in the nation when installation of approximately 230 sirens is completed in 1960, factors that affect audibility are not well enough defined to permit exact computation of the coverage. To furnish some information on this aspect of preparedness the respondents were asked whether they could hear the air-raid warning sirens when they were in the house with the windows closed. Sixty-five percent indicated they could. Those living in the suburbs and D.C. indicated with equal frequency they could hear the sirens; there was no difference in audibility of sirens. The percentage who said they thought they could hear the sirens at home when asleep dropped to about 50 percent. This did not vary with area of residence or age. Of those who work, about 90 percent indicated they could hear the warning sirens at their place of work. These figures are probably high, since the respondents evidenced inconsistency when asked to identify the signals. The similarity and frequency of fire, police, and ambulance sirens probably contribute to a belief that the sirens can be heard.

Under current civil defense plans certain actions are recommended when the air-raid siren is sounded. If the ALERT signal is sounded one is directed to tune the radio to CONELRAD stations\* at 640 and 1240 KC

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\*CONELRAD, meaning control of electronic radiation, has been initiated to eliminate navigational assistance to enemy bombers afforded by normal radio broadcasts. At the time of the warning, normal broadcasts will go off the air and after a few minutes civil defense information will be broadcast over two wave lengths only, 640 and 1240 KC.



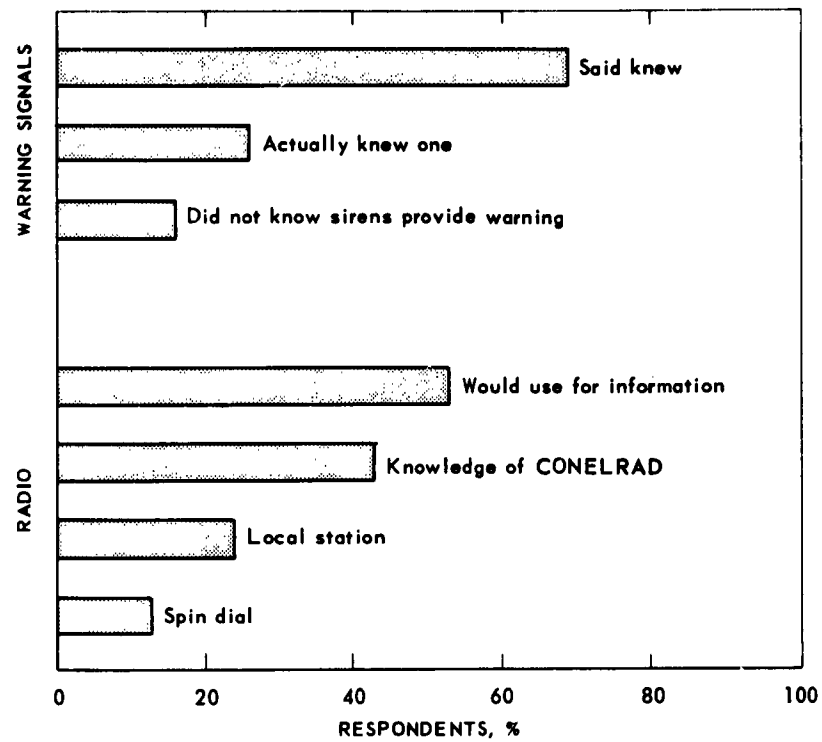


Fig. 8—Knowledge of Warning Signals and CONELRAD

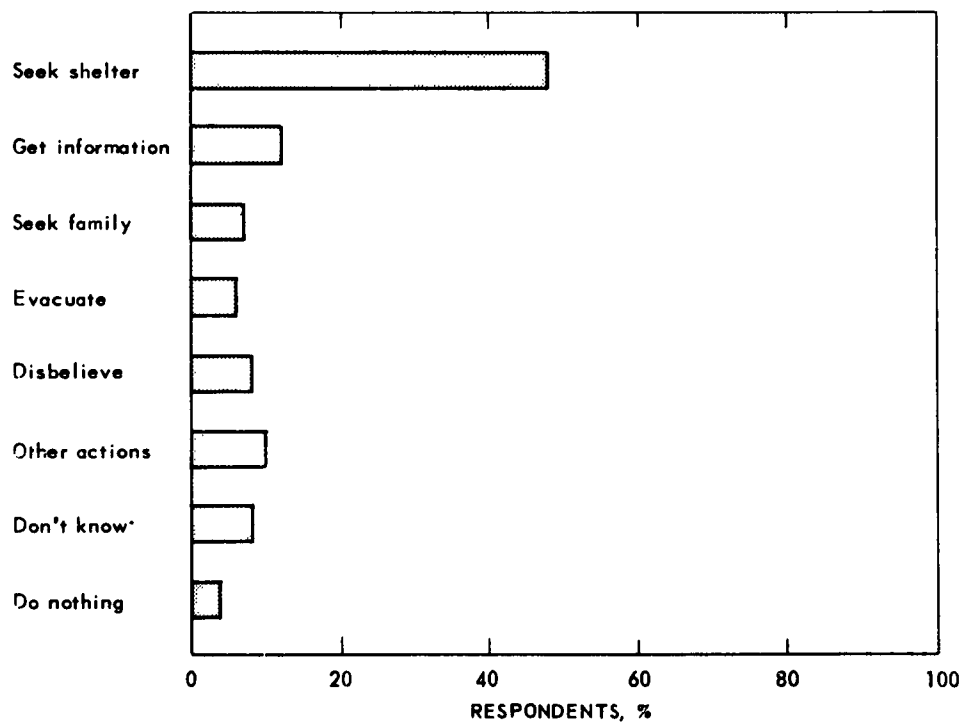


Fig. 9—Action if Warning Given

and "take action as directed by your local government." If the TAKE COVER signal is given either after the ALERT or as the first signal, e.g., as for a missile attack, one is to "take cover immediately in the best available shelter" (Ref 11, p 16). About one-half of the Washington-area respondents said their first action would be that of taking shelter if the air-raid warning sounded when they were at home (see Fig. 9). Others indicated they would not believe it was a real warning or would do nothing. A very few gave evacuation of the city as a course of action. Since evacuation has been perhaps the most publicized course of action by civil defense authorities (some maps have been distributed indicating evacuation routes), it is somewhat surprising to find that so few have either heard of this or would accept it as a course of action. The general tendency of about two-thirds of the population appears to be to take cover or to sit tight. There is no apparent relation between a course of action and age, education, or area of residence.

It is significant to note that only 1 person out of 10 indicated he would try to get more information when the warning sounded. When this respondent as well as those who had not volunteered this course of action were asked specifically where they would get more information when the warning sounded, about one-half mentioned the radio. Two out of ten said they would use the telephone, an action the public is specifically warned against taking. Use of the telephone is mentioned more frequently by the older residents and the less educated. The radio, on the other hand, is given as the source of information by the younger and the more educated. This same relation has been reported in the nation.<sup>2</sup> Three out of five suburban residents named the radio as the source of information at the time of an attack.

Although radio stations in the Washington area periodically test CONELRAD by going off the air for approximately a minute (after having made an announcement to this effect) and the majority of new radio sets that are sold have the two CONELRAD stations, 640 and 1240 KC, marked, only 43 percent of those interviewed showed a knowledge of CONELRAD. When asked where they would tune in the radio for information, about 4 out of 10 persons said they would spin the dial or tune to a local radio station; 2 out of 10 professed complete ignorance (see Fig. 8). Knowledge of CONELRAD is held most frequently by those under 45 and the more educated; those who know of some protective measure frequently have a knowledge of CONELRAD.

## WILLINGNESS TO TAKE PROTECTIVE MEASURES

The Washington-area public is generally unprepared for the effects of an atomic attack. Although a high percentage believe that Washington would be a target and that the enemy would succeed in delivering a weapon on the city should there be a war, only a few know what the warning signals are, less than one-half are familiar with CONELRAD, and essentially no-one has prepared a shelter area or made other preparations other than the normal stocking of food.

It is entirely possible that the public is willing to expend time, energy, and money to provide protection if there is proper emphasis, sufficient information, and publicity about the means of preparation for protection against a nuclear attack. Such things as shelter construction, home warning devices, radiation detection instruments, and courses in civil defense are probably essential aspects of a well-prepared population. The Washington residents were asked whether they were willing to support programs that would require an effort on their part. An analysis of the responses indicated not only how willing the public is but also characteristics of those who are willing. The latter provide clues as to the possible content and nature of an information and education program that would be designed to increase the desire to take protective measures. Although it is possible that the actual number who would build shelters, purchase warning or radiation devices, or support programs might drop below the number of those who state a willingness in this survey, it is also highly probable that once some residents had indicated their seriousness of purpose by actually taking the measure, e.g., building a shelter, a community spirit would prevail that would result in some who had previously been unwilling actually taking the measure too.

### Home Warning Device

A home warning device called NEAR, standing for National Emergency Alarm Repeater, is under development by the Office of Civil and Defense Mobilization. The instrument can be easily installed by plugging it into any electric outlet in the home. It is estimated that each NEAR device will cost approximately \$5, plus a 50-cent charge for installation at the power station. Six out of ten persons indicated a desire to have such a device in their home if it were free; this number dropped to four out of ten if a \$5 charge per household were made (see Fig. 10). The

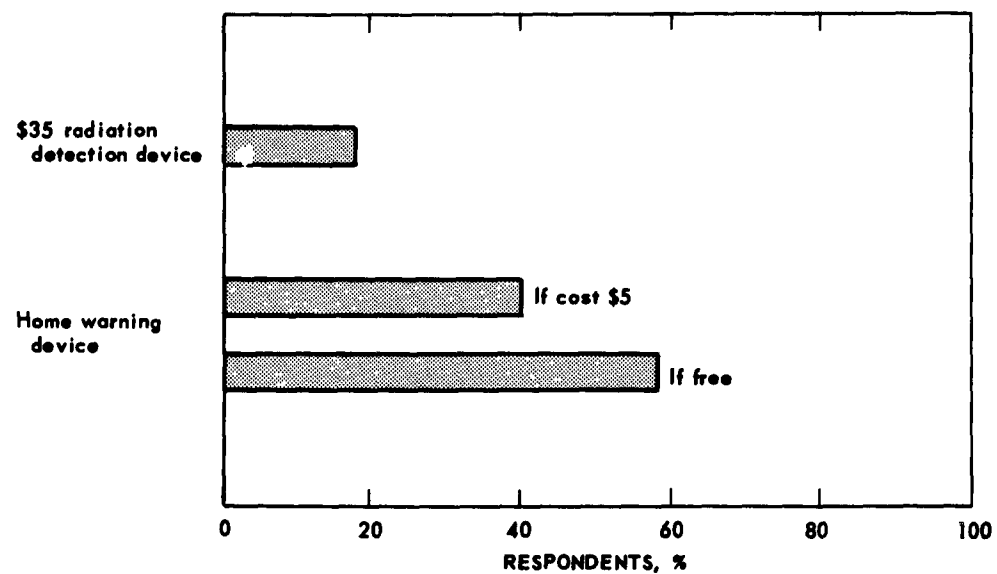


Fig. 10—Willingness to Buy Protection Devices

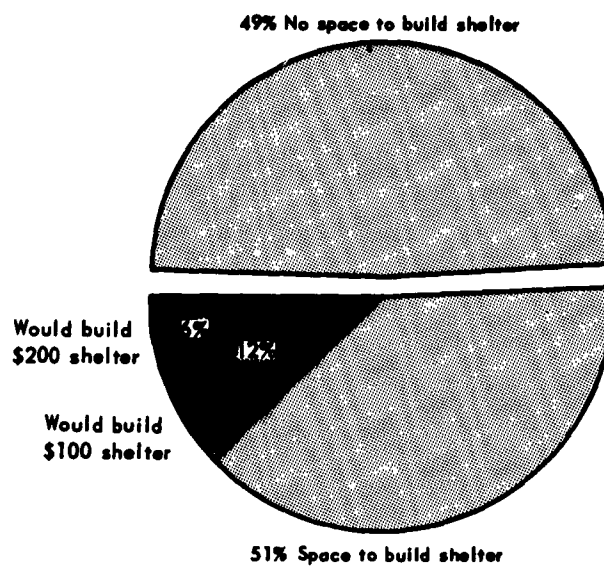


Fig. 11—Family Shelter Construction

number willing to have the device free or at a \$5 charge is higher among the younger group. There is no relation to income level. The less educated and those who live in D. C. tend to be more willing to have the device if it is free. The number who are willing to have a home warning device is highest among those who see their chances of survival as fifty-fifty or less. Those who felt they knew what the warning signal is tended to be more willing to buy the device.

### Radiation Detection Device

Following an attack it will be essential that survivors keep an accurate account of the amount of radiation to which they are exposed. It has been estimated that an accurate radiation measurement device would cost approximately \$35. Such an instrument is necessary equipment for each home shelter. Only about 2 out of 10 respondents expressed a willingness to purchase such a device (see Fig. 10). Again it is the younger group who are more willing; those who live in D. C. also tend to be more willing. The number reporting a willingness to purchase a radiation detection device was higher among those also willing to have or purchase a home warning device.

### Shelters

Unless strategic warning, 2 or 3 days' warning, is available in the missile age, the maximum time between detection of the enemy-launched missile and arrival on the city is 30 min, probably 15 min, and possibly 0 min. The only tactic under these conditions is to take shelter. Even in the event of a bomber attack, a 2- or 3-hr warning time is not sufficient to evacuate Washington. The latest "Handbook for Emergencies," purportedly distributed to each household, lists as item one under family preparedness "build an underground shelter" (Ref 11, p3). Quite appropriately, increased emphasis is being placed on the importance of building family shelters.

An examination was made of the potential protection which would be afforded by shelters capable of withstanding overpressures of between 10 and 100 pounds per square inch (psi) from representative missile and bomber attacks on Washington. The results indicated that if the Washington-area population were in shelters capable of withstanding overpressures of approximately 10 psi, they would have essentially their

highest chance of surviving an ICBM attack. Naturally, for high-yield weapons, accurately delivered, the percentage of the population in 10 psi shelters who survive is not large but is essentially the best obtainable when construction costs are included in the considerations.<sup>12</sup> The results indicate that it would be of value to have shelters capable of withstanding at least 10 psi for protection against ICBMs; shelters primarily designed for protection against fallout can be built with a 10-psi protection.

Of the sample interviewed in the Washington area, 46 percent live in apartments, rooms, or rented houses. This corresponds to a recent survey that reports that 46.5 percent of Washington-area families rent the homes in which they live.<sup>13</sup> Only approximately one-half of the respondents live in homes they own that have building space. The number owning homes is highest among those over 30, the higher-income levels, and suburban residents.

None of the respondents who own homes have built home shelters; for that matter hardly anyone has built a shelter in Washington. The most frequent reasons given for not having built a shelter are (a) lack of enemy threat, (b) insufficient money, or (c) too great an enemy threat (a shelter would be useless). The younger, those with less education, those with lower incomes, and those who live in D. C. proper mentioned lack of money most frequently. The older, the more educated, and those with higher incomes gave the threat as the reason for not building a shelter.

Many shelter designs have been developed by OCDM and its contractors. Recently in Montgomery County, Md., a design for a do-it-yourself family shelter was proposed, which would cost approximately \$100 to build and equip. This underground shelter uses inexpensive materials; it can accommodate a family of from four to six people. The family is protected against fallout and blast overpressures of about 10 psi.<sup>12</sup> The cost of the shelter is increased to approximately \$200 if hired labor is used for the construction.

Those respondents who have space for building were asked whether they would build the \$100 do-it-yourself shelter. One-fourth expressed a willingness to build the \$100 shelter; this dropped to 12 percent for a cost of \$200 (using hired labor). (See Fig. 11 ) Those under 60 and those with higher education showed more willingness to build the shelter

at either cost. Those with space who lived in the suburbs appeared no more willing than residents of D. C. proper. There is little relation to income; those in the \$4000 to \$6000 yearly income bracket said they would build either shelter as often as did those in the \$8000-plus bracket and more often than those in the \$6000 to \$8000 bracket. Those who see their chance of surviving an attack as fifty-fifty or better are more often willing to build a shelter than those who do not see a fair chance of survival. The number reporting willingness to build a shelter is highest among those who have heard of protective measures and those who would seek shelter when the area was attacked. Furthermore those who were willing to build a \$100 shelter were also more often willing to buy a home warning device or a radiation detection device or build a \$200 shelter.

An alternative action to home shelters is a federally financed community shelter system. Such a system might be necessary to supplement the family shelters built by home owners in order to protect that part (about one-half) of the population that does not own homes as well as the working population during the day. The Washington residents were asked whether or not they favored a proposed program of federally financed underground shelters in all cities if it meant an increase for several years in individual income taxes of from \$10 to \$90 depending on family income. Seven out of ten approved such a proposal. Favorable replies were highest among the younger, those who were in lower-income brackets, and residents of D. C. proper. Those who were willing to take protective measures — buy a home warning device, buy a radiation detection device, or build a \$100 home shelter — more frequently favored a federal shelter program.

### Civil Defense Courses

In addition to general information disseminated to the public through mass media, basic civil defense courses are offered in the community. In Montgomery County a 20-hr civil defense course was offered twice during the school year 1957-1958 under the county adult-education program. Three hundred people were graduated from the course. In the survey over one-half (54 percent) of the respondents said they would be willing to take a 10-hr basic civil defense course. The younger and more educated more frequently expressed a willingness to take such a course. Those who saw better than a 50 percent chance of war in the next 2 years appeared more willing to participate in a course. On the other hand, the less a person

believes that Washington will be attacked or the better he feels his chances are of surviving such an attack, the more willing he is to take a civil defense course.

In 1956 a Gallup poll indicated that 64 percent of the nation approved of a plan "to require every man and woman to spend an average of one hour a week in civil defense work."<sup>14</sup> The same question posed in the Washington area elicited approval by 65 percent, essentially the same proportion of the population. Those with less education, those with lower incomes, and residents of D. C. more often approved of the proposal. Furthermore, approval was highest among those who saw a better chance of war in 2 years and those who felt survival chances were less than 50 percent.

As previously mentioned, about one-half of the Washington population has taken a first-aid course; most people took the course 5 years or more ago, and few know the treatment for burns. The respondents were asked whether they would take a refresher or an initial first-aid course. Sixty-three percent said they would; 33 percent said they would not (see Fig. 12). Those who would take a course were the younger and the more educated. Those who had taken a first-aid course were generally more willing to take a refresher course than those who had never taken a course. Furthermore those who supported compulsory civil defense work or would take a 10-hr basic civil defense course were more frequently willing to take a first-aid course.

#### MEDIA FOR CIVIL DEFENSE INFORMATION

In the Washington area, civil defense information has been distributed through schools, places of work, and communities. One-hundred thousand copies of the pamphlet entitled "Your Survival," containing an evacuation map and other civil defense instructions, have been distributed in Montgomery County. Over 2000 people receive a county civil defense newsletter. In the fall of 1958 the OCDM publication "Handbook for Emergencies" was distributed throughout the Washington area. Besides the courses previously mentioned, seminars have been held on civil defense in industry. News of civil defense activities appears in local newspapers (maps of evacuation routes have been published). Training has been given in federal and local government offices and in some department stores and banks. Civil defense officials have spoken before parent-teacher, civic, and other interested groups.



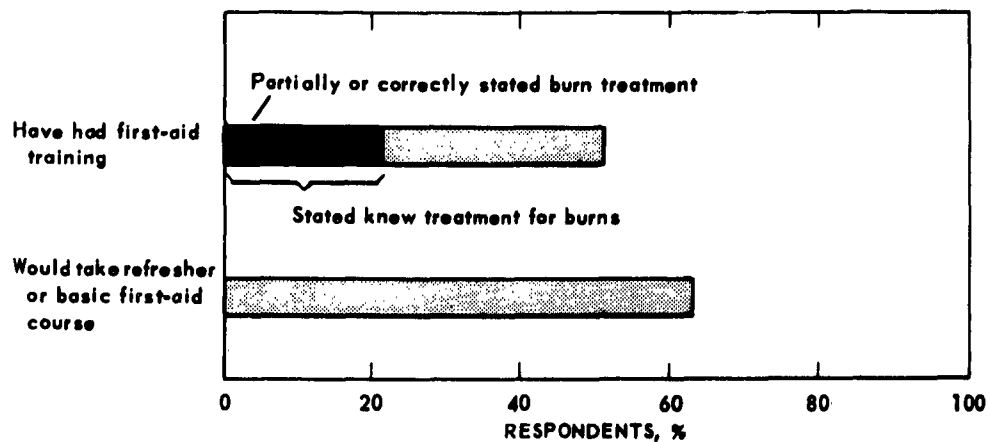


Fig. 12—Experience with and Attitude toward First-Aid Courses

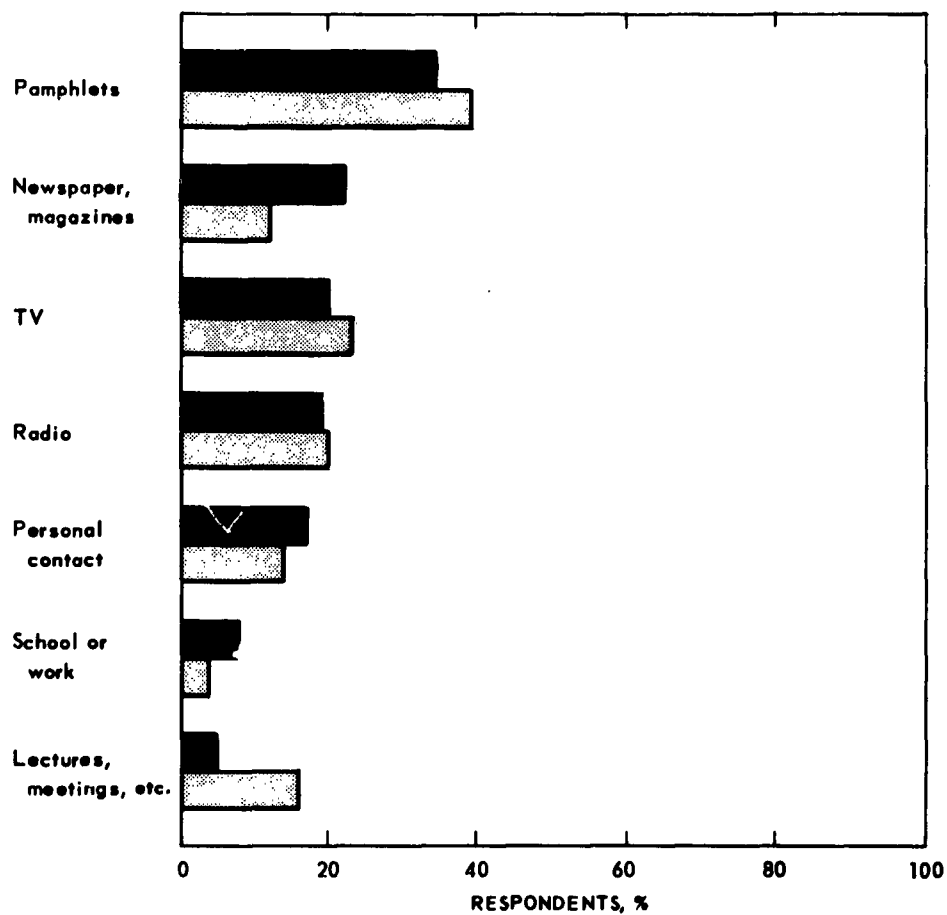




Fig. 13—Media for Civil Defense Information

 Media of information received  
 Best media for information

How effective has this effort been to reach the public? What media appear to be the best? The respondents were asked to recall the media through which they had received civil defense information. Pamphlets, newspapers and/or magazines, TV, radio, and personal contact were the most frequently mentioned items, in the order given (see Fig. 13). The younger, those with more education, those in the higher-income brackets, and residents of the suburbs mentioned pamphlets most frequently as the source of the civil defense information they had received. The less educated, older, and lower-income groups tended more frequently either to be unable to recall any media or to say they had received no information. Radio and TV were mentioned with about equal frequency among all groups. The people who had received their information through pamphlets tended to be more informed about protective measures, to feel that they knew the warning signals, and to realize that the radio (specifically CONELRAD) should be used for information at the time of an attack.

The dissemination of information to the public has been largely through pamphlets. Pamphlet effectiveness is difficult to establish; it is clear that those who have received information through pamphlets are generally more familiar with protective measures, although they have been no more stimulated to take action than other groups. As mass media, radio, TV, and newspapers are possibly more effective, i.e., they reach more of the public. They were reported in the 1954 national study<sup>2</sup> as the most frequent sources of civil defense information. Increased emphasis in those areas might provide a big payoff in effecting an informed public. Pamphlets are necessary, though, to provide a permanent reference for proper actions.

The respondents felt that the best ways for civil defense authorities to get information to them were pamphlets, TV, radio, courses, personal contact, and newspapers, in the order given (see Fig. 13). Again, pamphlets were favored more often by the younger and the more educated. There was fairly general agreement among all groups that TV and radio were good media. In general the respondent named as the best medium the same medium that he had given as his past source of information, i.e., those who had received information from pamphlets more frequently listed this as the best medium. It is certainly not clear whether they felt the medium they named was the best medium or simply the most familiar source. It is clear, though, that radio, TV, newspapers, and pamphlets are favored by the public and further that a fair proportion, perhaps one-fourth, would be willing to gain information through personal contact.

At least two-thirds would like additional information on civil defense and nuclear warfare. These are again the younger and the more educated. Three-fourths of those who wanted additional information did not name any specific areas but rather said they would like general information on civil defense and measures of self-protection. A few mentioned they would like to know about the location and use of shelters and the problem of fallout. It is apparent that the desire for information is fairly general and that an increased effort through media other than pamphlets would be received with favor by the public.

A reference book has been suggested as a good source of information for families. Such a book could contain information about probable kinds of enemy attack on Washington, defenses against such attacks, and the ways in which the community and the individual could increase chances of survival. It has been estimated that the book would cost approximately \$2. Less than one-half of those questioned were willing to purchase such a book. The general reaction was one of believing that sufficient information was available free and should be available free. The younger were most frequently willing to purchase the book. There was no relation to income, although those who were willing to buy a \$5 home warning device were more frequently willing to purchase the book. Furthermore, those who would purchase the book generally received civil defense information in the past from pamphlets.

## EVALUATION OF CIVIL DEFENSE

The public generally supports the purpose and/or organization of civil defense. Less than one-fifth commented unfavorably on civil defense and these were more often critical of the organization rather than the purpose of civil defense (see Fig. 14). About one-half felt that the civil defense program should be accelerated. The more likely war seemed in the next 2 years to the individual the more often he favored civil defense. Those who saw their chances of survival as 50 percent or better more often favored civil defense. The younger and the more educated were more favorably disposed toward civil defense. Favorable comments were highest among those who had heard of protective measures, those who favored a federally financed shelter system, those who believed in a compulsory 1 hr per week of civil defense work, or those who were willing to take a 10-hr basic civil defense course.

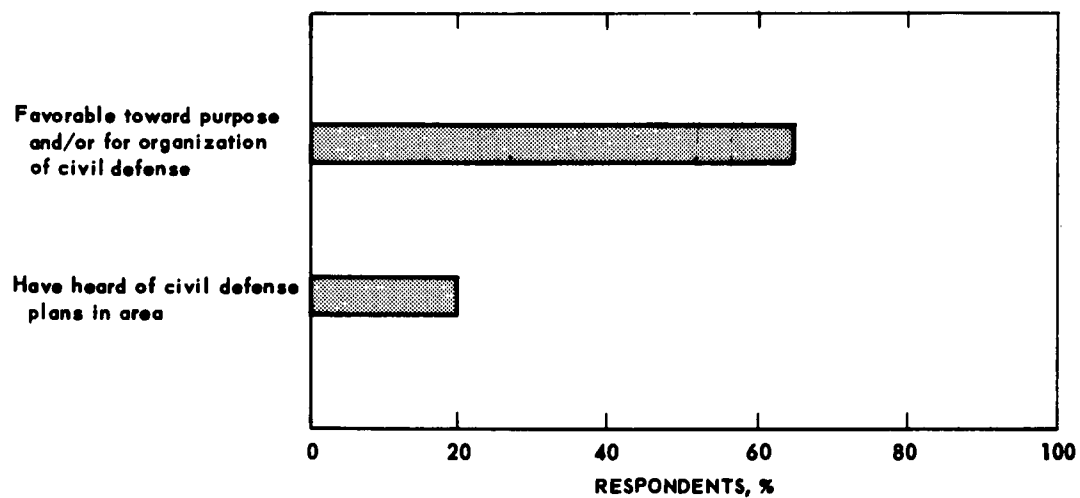


Fig. 14—Evaluation of Civil Defense

Knowledge of activities of local civil defense offices is generally lacking (Fig. 14). Only one-fifth said they had read or heard of anything that the city or county civil defense officials were doing. This corresponds to the figure found in the 1954 nationwide survey (Ref 2, p 93). Those in the Washington area who had heard of some local activity were more often in favor of civil defense. The activities more frequently mentioned were evacuation of officials, shelter plans, holding of meetings or courses, and general comments on what civil defense will do at the time of an attack. Four out of ten who said they had heard of local actions could not name any of these actions, or made vague, inappropriate statements. Residents of D. C. proper tended to have heard about the D. C. civil defense activities more often than suburban residents. The activities more frequently mentioned by D. C. residents were evacuation of officials and shelter plans; most frequently mentioned by suburban residents were the holding of meetings and courses. The younger and more educated tended to remember some activity of civil defense more frequently. Those who felt they had a 50 percent or better chance of survival were more familiar with civil defense activity in the area. Finally, those more knowledgeable on fallout, protective measures, and CONELRAD were more familiar with local civil defense activities.

#### STATUS OF PUBLIC KNOWLEDGE AND PREPARATION

The public's estimate of the threat of war and of its chance of surviving a nuclear attack affects the desire to learn about protective measures and the initiative to take those measures necessary for survival. Leadership provided by the government has a significant effect on actions, e.g., policies toward shelters, organization and support of civil defense, and emphasis on informing and educating the public.

This survey shows that the Washington-area population does not perceive much threat of another war, i.e., only one out of ten sees better than an even chance of war occurring, few see any chance of it in the next 20 years. They do feel, however, that should war come, Washington would be a target and the enemy would succeed in dropping a nuclear bomb on Washington.

Even though the public is generally uneducated about effects of nuclear weapons, they do not underestimate the destructive power of an H-bomb. The chance of surviving an attack is seen as poor. The few residents who

feel that war is likely in the near future, consider Washington a target and feel their chance of survival is poor are generally more knowledgeable on bomb effects.

Essentially no measures of preparation have been taken by the public. This is undoubtedly due in part to the fact that the public is generally uneducated on what they should do, only three-fourths could name any preparation measure; few could name any measures other than stocking food. Especially poor is the public's knowledge of warning signals and CONELRAD.

There is no doubt that the Washington-area public is unprepared for a nuclear attack. They do however express a willingness to take certain actions to increase their chances of survival, i.e., about half would be willing to have a home warning device, a fifth would purchase a radiation detection device, of those who own their homes one fourth would build a \$100 do-it-yourself shelter. There was general approval of federally financed shelters and civil defense courses.

While approving of the purpose of civil defense, the public professes to know little about the activity of local civil defense organizations. They would like to have more information. The favored media for information are those through which they have received information in the past—pamphlets, the newspaper, TV, and radio.

The results of the survey indicate that the public would be receptive to an increased education program. It is postulated that once a program of family shelter construction got underway the proportion of the population who would build structures would increase over that reported here. With a move in this direction, other measures, e.g., home warning and radiation detection devices, would be acquired by a larger percentage. An increased effort by civil defense organizations based on some of the factors outlined in this report would undoubtedly result in a better prepared public, one which would in turn suffer fewer casualties in the event of a nuclear attack.

Appendix A  
SURVEY QUESTIONNAIRE AND TABULATED RESPONSES

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## **SURVEY QUESTIONNAIRE**

On the following pages the questions and categories for recording answers used in the survey are shown. All questions and alternative answers that are capitalized were on a copy of the questions given to each respondent to aid him in answering the questions. The choices in parentheses were used to aid the interviewer in interpreting the responses but were not given to the interviewee.

1. IF A WORLD WAR COMES, WHEN DO YOU THINK IT IS LIKELY TO START?
  - (a) 6 months or less
  - (b) 6 months to 1.9 years
  - (c) 2 to 4.9 years
  - (d) 5 to 9.9 years
  - (e) 10 to 19.9 years
  - (f) 20 years or more
  - (g) don't know
  - (h) never
2. HOW LIKELY DO YOU THINK IT IS THAT IT WILL HAPPEN WITHIN \_\_\_\_ YEARS?
  - A. ALMOST CERTAIN
  - B. A GOOD CHANCE
  - C. ABOUT FIFTY-FIFTY
  - D. SOME CHANCE
  - E. NO CHANCE
  - (f) no opinion
3. HOW LIKELY DO YOU THINK IT IS THAT WE WILL HAVE A WORLD WAR IN 2 YEARS OR LESS?
  - A. ALMOST CERTAIN
  - B. A GOOD CHANCE
  - C. ABOUT FIFTY-FIFTY
  - D. SOME CHANCE
  - E. NO CHANCE
  - (f) no opinion
4. IN CASE OF ANOTHER WORLD WAR, HOW MUCH CHANCE DO YOU THINK THERE IS OF WASHINGTON BEING ATTACKED WITH ATOMIC BOMBS?
  - A. A GOOD CHANCE
  - B. A FAIR CHANCE
  - C. NOT MUCH CHANCE
  - (d) don't know
5. IF WASHINGTON WERE ATTACKED THIS WEEK DO YOU THINK THE ENEMY WOULD SUCCEED IN DROPPING AN ATOMIC BOMB ON THE CITY?
  - (a) yes
  - (b) no
  - (c) don't know

6. IF AN H-BOMB HIT WASHINGTON TODAY, WITHIN HOW MANY MILES FROM WHERE IT FELL DO YOU THINK ALMOST EVERYBODY WOULD BE KILLED?
  - A. UP TO 2 MILES
  - B. 2 TO 4 MILES
  - C. 5 TO 9 MILES
  - D. 10 TO 20 MILES
  - E. OVER 20 MILES
  - (f) don't know
  
7. WHAT DO YOU FEEL WOULD BE YOUR CHANCE OF SURVIVING AN ATTACK IF YOU WERE AT HOME?
  - A. EXCELLENT CHANCE OF SURVIVAL
  - B. GOOD
  - C. FIFTY-FIFTY
  - D. POOR
  - E. NO CHANCE AT ALL
  - (f) don't know
  
8. WHAT THINGS DO YOU THINK CAUSE MOST OF THE DEATHS IN AN ATOMIC ATTACK?
  - (a) blast
  - (b) radiation and fallout (burns, sickness, etc.)
  - (c) falling debris or flying objects
  - (d) shortages of food, drugs, etc.
  - (e) flash, heat, and fires (burns)
  - (f) panic
  - (g) other - write out
  - (h) don't know
  
9. If fallout already mentioned, omit A and ask B
  - A. HAVE YOU EVER HEARD OR READ ANYTHING ABOUT FALLOUT FROM ATOMIC BOMBS?
    - (a) yes
    - (b) no
    - (c) not sure
  
  - B. HOW MANY OF THE PEOPLE STILL ALIVE AFTER THE BOMB HAS FALLEN DO YOU THINK WILL BE KILLED BY THE FALLOUT?
    - (a) up to 10% (up to 150,000)
    - (b) 11 to 25% (150,000 to 375,000)
    - (c) 26 to 50% (375,000 to 750,000)
    - (d) 51 to 75% (750,000 to 1,125,000)
    - (e) 76 to 100% (1,125,000 to 1,500,000)
    - (f) don't know
  
10. A. DO YOU KNOW WHAT THE WARNING SIGNAL IS WHICH TELLS YOU THAT ENEMY PLANES ARE HEADED FOR WASHINGTON?
  - (a) yes
  - (b) no
  - (c) not sure

if (b) or (c) - Do you know whether it's bells or whistles or what?

  
- B. WHAT IS IT?
  - (a) correctly identified - alert, steady blast 3-5 minutes  
take cover, wailing tone or short blasts for 3 minutes

- (b) incorrectly identified - knows of sirens
- (c) doesn't know of sirens

11. CAN YOU HEAR THE AIR RAID WARNING SIRENS:  
A. IN YOUR HOUSE WITH THE WINDOWS CLOSED?

- (a) yes
- (b) no
- (c) don't know

B. AT WORK?

- (a) yes
- (b) no
- (c) don't know
- (d) don't work

12. DO YOU THINK THE SIRENS WOULD WAKE YOU UP IF AN AIR-RAID WARNING WERE SOUNDED AT NIGHT?

- (a) yes
- (b) no
- (c) don't know

13. IF YOU HEARD THE AIR-RAID WARNING SIRENS SOUNDING THIS EVENING WHEN YOU WERE AT HOME, WHAT WOULD YOU DO FIRST?

- (a) get more information
- (b) take shelter
- (c) evacuate, flee
- (d) seek family
- (e) other - write out
- (f) don't know
- (g) wouldn't believe it
- (h) do nothing

14. If in 13 "get more information" was not mentioned:

A. If you wished to get more information about what was going on and what to do, how would you get it?

- (a) telephone
- (b) radio
- (c) other - write out
- (d) don't know
- (e) ask or watch others
- (f) ask warden or police
- (g) wouldn't try

B. If "get more information" is mentioned in 13:

How would you get more information?

- (a) telephone
- (b) radio
- (c) other - write out
- (d) don't know
- (e) ask or watch others
- (f) ask warden or police
- (g) wouldn't try

- C. If radio mentioned:  
Where would you tune it?  
(a) shows knowledge of CONELRAD (640 and 1240)  
(b) spin dial  
(c) tune in local station  
(d) don't know
- D. If radio not mentioned:  
If you tried the radio where would you tune it?  
(a) shows knowledge of CONELRAD  
(b) spin dial  
(c) tune in local station  
(d) don't know
15. A. HAVE YOU HEARD OR READ ANYTHING ABOUT WHAT A PERSON OUGHT TO DO NOW FOR HIS OWN SAFETY AND HIS FAMILY'S SAFETY TO PREPARE FOR AN ATOMIC ATTACK?  
(a) yes  
(b) no  
(c) not sure or don't know
- B. If yes:  
WHAT HAVE YOU HEARD OR READ?  
(a) stock house with food, etc.  
(b) build shelter  
(c) get battery radio  
(d) have first-aid kit  
(e) shelter area fixed  
(f) other - write out  
(g) don't remember  
(h) get CD information  
(i) blankets, candles, flashlight, gas in car, emergency kit  
(j) know about evacuation
- C. If things mentioned:  
HAVE YOU DONE ANY OF THESE THINGS?  
(same choices (a) - (j) as 15 B plus (k) none)
- D. If no things done:  
THERE ARE MANY REASONS WHY A PERSON MAY NOT HAVE DONE ANYTHING. WHAT ARE THE REASONS IN YOUR CASE?  
(a) laziness, complacency  
(b) lack of threat; threat doesn't justify it  
(c) no government plan  
(d) no home space  
(e) other - write out  
(f) don't know  
(g) useless - threat too great
- E. If portable radio not mentioned:  
DO YOU OWN A PORTABLE, BATTERY-OPERATED RADIO?  
(a) yes  
(b) no

16. WOULD YOU BUY A BOOK COSTING \$2 WHICH WOULD CONTAIN INFORMATION ABOUT PROBABLE KINDS OF ENEMY ATTACK ON WASHINGTON, OUR DEFENSES AGAINST ATTACK, AND THINGS YOUR COMMUNITY AND YOU YOURSELF CAN DO TO INCREASE YOUR CHANCES OF SURVIVAL?

(a) yes  
(b) no  
(c) don't know or not sure

17. SEVERAL TYPES OF SMALL HOME WARNING DEVICES HAVE BEEN DEVELOPED. IF YOU HAD ONE, IT WOULD WARN YOU WHEN THE ENEMY ATTACK WAS DISCOVERED. WOULD YOU WANT ONE OF THESE?

(a) yes  
(b) no  
(c) don't know or not sure

WOULD YOU PAY \$5 FOR ONE?

(a) yes  
(b) no  
(c) don't know or not sure

18. IF AN ATOMIC ATTACK CAME, IT WOULD BE IMPORTANT FOR YOU TO BE ABLE TO TELL HOW MUCH RADIATION YOU WERE BEING EXPOSED TO. WOULD YOU BUY AN INSTRUMENT COSTING ABOUT \$35 WHICH WOULD MEASURE RADIATION?

(a) yes  
(b) no  
(c) don't know or not sure

Do not ask 19 to apartment dwellers, mark 19 A (c)

19. A. MANY PEOPLE IN THE WASHINGTON AREA HAVE NOT YET BUILT HOME SHELTERS. IS THIS TRUE IN YOUR CASE?

(a) have not  
(b) have  
(c) lives in apartment house

- B. THERE ARE MANY REASONS WHY A PERSON MAY NOT HAVE BUILT A HOME SHELTER. WHAT ARE SOME OF THE REASONS IN YOUR CASE?

(a) no threat  
(b) no money  
(c) no space  
(d) laziness, complacency  
(e) other - write out  
(f) don't know  
(g) basement adequate  
(h) futile, useless, threat too great  
(i) haven't thought about it

Do not ask 20 and 21 to people who answer "no space" or live in apartments

20. A DESIGN FOR AN UNDERGROUND FAMILY SHELTER IS NOW BEING DEVELOPED WHERE THE WHOLE COST OF BUILDING AND SUPPLYING THE SHELTER WOULD BE ABOUT \$100 IF YOU OR SOME MEMBER OF YOUR FAMILY BUILT IT YOURSELF. WOULD YOU BUILD SUCH A SHELTER?

(a) yes  
(b) no  
(c) don't know

21. WOULD YOU BUILD THIS SHELTER IF YOU PAID SOMEONE ELSE TO DO THE LABOR AND IT COST ABOUT \$200?
- (a) yes
  - (b) no
  - (c) don't know
22. IT HAS BEEN PROPOSED THAT THE FEDERAL GOVERNMENT SHOULD BUILD UNDERGROUND SHELTERS IN ALL CITIES AND OTHER TARGET AREAS IN THE U.S. EACH SHELTER WOULD HOLD UP TO SEVERAL THOUSAND PEOPLE FOR SEVERAL WEEKS. WOULD YOU FAVOR SUCH A SHELTER PROGRAM IF IT MEANT AN INCREASE FOR SEVERAL YEARS IN YOUR FEDERAL TAXES OF ABOUT 10 TO \$90 DEPENDING UPON YOUR INCOME?
- (a) yes
  - (b) no
  - (c) don't know
23. A. HAVE YOU EVER HAD ANY FIRST-AID TRAINING?
- (a) yes
  - (b) no
- If "no" for 23 A go to 23 F
- If "yes" for 23A
- B. WHEN WAS THE LAST TIME YOU TOOK FIRST-AID?
- A. WITHIN ONE YEAR
  - B. WITHIN 5 YEARS
  - C. 5 YEARS OR MORE
  - (d) don't know, can't remember
- C. DO YOU REMEMBER THE TREATMENT FOR SERIOUS BURNS?
- (a) yes
  - (b) no
  - (c) not sure
- If "yes" for 24 C
- D. WHAT IS IT?
- (a) correctly stated (4 or more items correct)
  - (b) partly correct (2 or 3 items correct)
  - (c) incorrectly stated (one or none correct or contradictions to actual treatment)
- (TREATMENT FOR SERIOUS BURNS - not read to respondents)
- (1) do not use greasy ointment if skin is charred or burned
  - (2) do not wash the burn
  - (3) apply sterile petroleum or vaseline and a sterile gauze dressing
  - (4) apply sterile cloths with baking soda solution for extensive burns
  - (5) remove clothing that is not stuck from burned area
  - (6) possibly treat for shock or keep body warm
  - (7) don't use iodine or cotton
  - (8) do not break blisters
- E. WOULD YOU TAKE A 7-10 HR REFRESHER COURSE IN FIRST-AID?
- (a) yes
  - (b) no
  - (c) don't know
- F. WOULD YOU TAKE A 12-15 HR FIRST-AID COURSE?
- G. WOULD YOU TAKE A 10 HR BASIC CD COURSE?

24. FROM WHAT SOURCES DO YOU RECALL HAVING RECEIVED CIVIL DEFENSE INFORMATION?
- (a) radio
  - (b) TV
  - (c) newspapers, magazines
  - (d) pamphlets
  - (e) personal contact
  - (f) other - write out
  - (g) none named, don't know
  - (h) at work, school
  - (i) lectures, movies, exhibits, posters, meetings
25. HAVE YOU HEARD OR READ ANYTHING ABOUT WHAT CIVIL DEFENSE OFFICIALS ARE DOING OR PLANNING TO DO IN THIS CITY (COUNTY)?
- (a) yes
  - (b) no
  - (c) not sure
- WHAT HAVE YOU HEARD OR READ? (write out)
26. WOULD YOU APPROVE OR DISAPPROVE OF A PLAN TO REQUIRE EVERY MAN AND WOMAN TO SPEND AN AVERAGE OF ONE HOUR A WEEK IN CIVIL DEFENSE WORK?
- (a) approve
  - (b) disapprove
  - (c) can't decide
27. IS THERE ANYTHING ABOUT CIVIL DEFENSE OR ATOMIC WARFARE YOU WOULD LIKE TO KNOW MORE ABOUT?
- (a) yes; if yes, what?
  - (b) no
28. WHAT WOULD BE THE BEST WAY FOR CIVIL DEFENSE AUTHORITIES TO GET INFORMATION TO YOU ABOUT CIVIL DEFENSE?
- (a) radio
  - (b) TV
  - (c) newspapers, magazines
  - (d) pamphlets and posters
  - (e) personal contact
  - (f) other - write out
  - (g) don't know, wants no information
  - (h) courses, meetings, lectures
  - (i) at work, school
29. WHAT IS YOUR OPINION OF CIVIL DEFENSE?
- write out



Table A1

## IMMINENCE OF WAR RELATED TO LIKELIHOOD OF WAR

[Q. How likely do you think it is that it will happen within (the year stated by the respondent<sup>a</sup>) ?]

Imminence of war	Almost certain	Good chance	Fifty-fifty	Some chance	No chance	No opinion	QNA <sup>b</sup>	Total	
								No.	%
	Respondents, %								
Less than 6 months	23	6	47	12	—	12		17	100
6 months to 2 years	16	16	45	20	—	3		31	100
2 to 5 years	4	19	50	27	—	—		26	100
5 to 10 years	11	7	34	48	—	—		27	100
10 to 20 years	33	14	29	24	—	—		21	100
Over 20 years	—	—	—	100	—	—		3	100
Never	—	—	—	2	79	19		42	100
Don't know	—	—	—	—	—	—	100	155	100

<sup>a</sup> Respondent was first asked when he thought the next war would occur.<sup>b</sup> QNA - Question not asked to the 48 percent who responded "Don't know" to "Imminence of war" question.

Table A2

## IMMINENCE OF WAR RELATED TO AGE AND TO EDUCATION

Imminence of war	Age, years <sup>a</sup>				Education		
	- 30	31-45	46-60	61+	College	High school	Grade school
	Respondents, %						
5 years	20	25	26	17	28	20	22
5 to 10 years	12	10	7	2	11	6	6
10 to 20 years	10	7	4	4	8	5	4
20+ years	1	2	0	0	1	1	0
Never	11	8	16	23	13	12	15
Don't know	46	48	47	54	39	56	53
Total	100	100	100	100	100	100	100

<sup>a</sup> The survey was confined to those 18 years and over; in all instances - 30 refers to those 18-30.

Table A3

## LIKELIHOOD OF WAR IN 2 YEARS

(Q. How likely do you think it is that we will have a world war in 2 years or less?)

Responses	Respondents, %
Almost certain	5
A good chance	6
About fifty-fifty chance	19
Some chance	28
No chance	30
No opinion	12
Total	100

Table A4

## LIKELIHOOD OF WAR IN 2 YEARS RELATED TO AGE, EDUCATION, AND AREA OF RESIDENCE

Likelihood of war in 2 years	Age, years				Education			Area of residence	
	-30	31-45	46-60	61+	College	High school	Grade school	D.C.	Suburbs
	Respondents, %								
Better than 50%	7	9	16	12	10	10	14	13	9
Fifty-fifty	31	21	9	17	15	23	24	24	13
Less than 50%	59	58	60	48	66	56	37	50	66
No opinion	3	12	15	23	9	11	25	13	12
Total	100	100	100	100	100	100	100	100	100

Table A5

## LIKELIHOOD OF WASHINGTON BEING ATTACKED

(Q. In case of another world war, how much chance do you think there is of Washington being attacked with atomic bombs?)

Response	Respondents, %
Good chance	63
Fair chance	18
Poor chance	12
Don't know	7
Total	100

Table A6

## LIKELIHOOD OF WASHINGTON BEING ATTACKED RELATED TO AGE, EDUCATION, AND AREA OF RESIDENCE

Chances of Washington being attacked	Age, years				Education			Area of residence	
	- 30	31- 45	46- 60	61+	College	High school	Grade school	D.C.	Suburbs
	Respondents, %								
Good	64	67	61	54	71	62	41	57	70
Fair	22	17	16	19	17	18	23	23	13
Poor	11	10	14	15	9	12	20	11	13
Don't know	3	6	9	12	3	8	16	9	4
Total	100	100	100	100	100	100	100	100	100

Table A7

## LIKELIHOOD OF BOMB ON WASHINGTON

(Q. If Washington were attacked this week do you think the enemy would succeed in dropping an atomic bomb on the city?)

Responses	Respondents, %
Yes	58
No	24
Don't know	18
Total	100

Table A8

**LIKELIHOOD OF BOMB ON WASHINGTON RELATED TO AGE, EDUCATION, AND AREA OF RESIDENCE**

Bomb on Washington	Age, years				Education			Area of residence	
	- 30	31-45	46-60	61+	College	High school	Grade school	D.C.	Suburbs
	Respondents, %								
Yes	59	56	58	63	67	54	45	51	67
No	29	24	27	8	20	22	37	29	17
Don't know	12	20	15	29	13	24	18	20	16
Total	100	100	100	100	100	100	100	100	100

Table 9

**CHANCE OF SURVIVAL**

(Q. What do you feel would be your chance of surviving an attack if you were at home?)

Response	Respondents, %
Excellent	2
Good	10
Fifty-fifty	19
Poor	36
None	26
Don't know	7
Total	100

Table A10

**CHANCE OF SURVIVAL RELATED TO AGE, EDUCATION, AND AREA OF RESIDENCE**

Chance of survival	Age, Years				Education			Area of residence	
	- 30	31-45	46-60	61+	College	High school	Grade school	D.C.	Suburbs
	Respondents, %								
Better than 50%	11	13	14	4	12	11	12	10	13
Fifty-fifty	22	18	22	13	20	19	18	19	19
Less than 50%	67	65	54	62	64	61	58	65	59
Don't know	0	4	10	21	4	9	12	6	9
Total	100	100	100	100	100	100	100	100	100

Table A11  
ESTIMATE OF H-BOMB MORTALITY RADIUS

(Q. If an H-bomb hit Washington today, how many miles from where it fell do you think almost everybody would be killed?)

Response	Respondents, %
Up to 2 miles	5
2 to 4 miles	15
5 to 9 miles	23
10 to 20 miles	24
Over 20 miles	13
Don't know	20
Total	100

Table A12  
ESTIMATE OF H-BOMB MORTALITY RADIUS RELATED TO AGE, EDUCATION, AND  
AREA OF RESIDENCE

Estimate of mortality radius	Age, years				Education			Area of residence	
	- 30	31-45	46-60	61+	College	High school	Grade school	D.C.	Suburbs
	Respondents, %								
0 to 4 miles	16	23	19	23	18	23	18	23	17
5 to 9 miles	27	18	25	23	28	19	19	18	29
10 to 20 miles	24	29	22	17	27	23	18	24	23
Over 20 miles	24	11	14	0	11	15	16	14	13
Don't know	9	19	20	37	16	20	29	21	18
Total	100	100	100	100	100	100	100	100	100

Table A13

## KNOWLEDGE OF BOMB EFFECTS

(Q. What things do you think cause most of the deaths in an atomic attack?)

Response	Respondents, %
Radiation and fallout	39
Blast	22
Flash, heat, fires	12
Panic	11
Falling debris, flying objects	5
Other	8
Don't know	20
Total <sup>a</sup>	117

<sup>a</sup> Total is more than 100 because of multiple responses.

Table A14

## KNOWLEDGE OF FALLOUT

(Q. Have you ever heard or read anything about fallout from atomic bombs?)

Response	Respondents, %
Yes	75
No	22
Not sure	3
Total	100

Table A15

## KNOWLEDGE OF CAUSES OF DEATH RELATED TO AGE AND TO EDUCATION

Causes of death	Age, years				Education		
	1-30	31-45	46-60	61+	College	High school	Grade school
	Respondents, %						
Radiation and fallout	47	43	38	19	48	39	14
Blast	12	24	26	29	32	16	14
Flash, heat, fires	12	8	17	10	18	9	6
Panic	18	11	9	6	10	14	10
Falling debris, flying objects	9	4	4	4	5	5	8
Other	7	8	9	8	3	12	12
Don't know	14	19	17	39	16	19	41
Total <sup>a</sup>	119	117	120	115	132	114	105

<sup>a</sup> Total is more than 100 because of multiple responses.

Table A16

## KNOWLEDGE OF FALLOUT RELATED TO AGE AND TO EDUCATION

Knowledge of fallout	Age, years				Education		
	1-30	31-45	46-60	61+	College	High school	Grade school
	Respondents, %						
Have heard of fallout	75	72	82	67	94	70	35
Have not heard of fallout	21	24	16	29	4	25	61
Not sure if heard of fallout	4	4	2	4	2	5	4
Total	100	100	100	100	100	100	100

Table A17

## ESTIMATE OF H-BOMB MORTALITY RADIUS RELATED TO KNOWLEDGE OF BOMB EFFECTS

Bomb effects	H-bomb mortality radius				
	Up to 5 miles	5-10 miles	10-20 miles	20+ miles	Don't know
	Respondents, %				
Radiation and Fallout	32	46	45	51	21
Blast	31	28	23	9	14
Flash, heat, fires	12	16	14	12	5
Panic	18	12	10	9	6
Falling debris, flying objects	5	5	4	12	3
Other	9	8	8	9	8
Don't know	14	13	10	7	54
Total <sup>a</sup>	121	128	114	109	111

<sup>a</sup> Total is more than 100 because of multiple responses.

Table A18

## CHANCE OF WAR IN 2 YEARS RELATED TO KNOWLEDGE OF CAUSES OF DEATH

Causes of death	Chance of war in 2 years			
	Certain - good	Fifty-fifty	Some - none	Don't know
	Respondents, %			
Radiation and fallout	23	44	42	30
Blast	40	8	26	10
Flash, heat, fires	14	10	14	5
Panic	9	15	11	12
Falling debris, flying objects	9	5	6	0
Other	11	6	7	10
Don't know	14	26	16	40
Total <sup>a</sup>	120	114	122	107
Total Respondents	(N = 35)	(N = 62)	(N = 185)	(N = 40)

<sup>a</sup> Total is more than 100 because of multiple responses.



Table A19

**LIKELIHOOD OF WASHINGTON BEING ATTACKED RELATED TO KNOWLEDGE OF CAUSES OF DEATH**

Causes of death	Chance of Washington being attacked			
	Good	Fair	Not much	Don't know
	Respondents, %			
Radiation and fallout	42	34	41	18
Blast	25	19	21	9
Flash, heat, fires	14	12	10	18
Panic	10	12	13	9
Falling debris, flying objects	6	3	3	5
Other	6	10	10	41
Don't know	19	19	18	0
Total <sup>a</sup>	122	109	116	100
Total respondents	(N = 202)	(N = 59)	(N = 39)	(N = 22)

<sup>a</sup> Total is more than 100 because of multiple responses.

Table A20

**LIKELIHOOD OF BOMB ON WASHINGTON RELATED TO KNOWLEDGE OF CAUSES OF DEATH**

Causes of death	Would enemy succeed in dropping bomb on Washington		
	Yes	No	Don't know
	Respondents, %		
Radiation and fallout	43	36	31
Blast	26	17	19
Flash, heat, fires	16	7	5
Panic	8	22	9
Falling debris, flying objects	4	9	3
Other	7	11	5
Don't know	18	13	38
Total <sup>a</sup>	122	115	110
Total Respondents	(N = 188)	(N = 76)	(N = 58)

<sup>a</sup> Total is more than 100 because of multiple responses.

Table A21

## CHANCE OF SURVIVAL RELATED TO KNOWLEDGE OF CAUSES OF DEATH

Cause of death	Chance of survival			
	Excellent - good	Fifty-fifty	Poor - none	Don't know
	Respondents, %			
Radiation and fallout	38	39	42	13
Blast	30	18	24	13
Flash, heat, fires	11	19	11	4
Panic	19	16	9	9
Falling debris, flying objects	0	11	4	4
Other	8	10	7	4
Don't know	11	10	21	61
Total <sup>a</sup>	117	123	118	108
Total respondents	(N = 37)	(N = 62)	(N = 200)	(N = 23)

<sup>a</sup> Total is more than 100 because of multiple responses.

Table A22

## KNOWLEDGE OF FALLOUT RELATED TO KNOWLEDGE OF CAUSES OF DEATH

Causes of death	Have you heard or read about fallout		
	Yes	No	Don't know
	Respondents, %		
Radiation and fallout	47	10	36
Blast	27	10	9
Flash, heat, fires	14	4	27
Panic	11	11	27
Falling debris, flying objects	5	6	0
Other	6	13	9
Don't know	12	49	18
Total <sup>a</sup>	122	103	126
Total respondents	(N = 241)	(N = 70)	(N = 11)

<sup>a</sup> Total is more than 100 because of multiple responses.

Table A23

## KNOWLEDGE OF FALLOUT LETHALITY

(Q. How many people still alive after the bomb has fallen do you think will be killed by the fallout?)

Response	Respondents, %
Up to 10% (up to 150,000)	4
11 to 25% (150,000 to 375,000)	8
26 to 50% (375,000 to 750,000)	16
51 to 75% (750,000 to 1,125,000)	9
76 to 100% (1,125,000 to 1,500,000)	7
Don't know	34
Item not asked those who had not heard of fallout	22
Total	100

Table A24

## KNOWLEDGE OF PREPARATION MEASURES

(Q. Have you heard or read anything about what a person ought to do now for his own safety and his family's safety to prepare for an atomic attack?)

Response	Respondents, %
Have heard of measures of preparation	72
Have not heard of measures of preparation	26
Not sure if have heard of measures of preparation	2
Total	100

Table A25

**KNOWLEDGE OF PREPARATION MEASURES RELATED TO AGE, EDUCATION, INCOME, AND  
AREA OF RESIDENCE**

Knowledge of preparation measures	Age, years				Education			Income, thous of dollars				Area of residence	
	-30	31-45	46-60	61+	College	High school	Grade school	-4	4-6	6-8	8+	D.C.	Suburbs
	Respondents, %												
Yes	72	71	78	63	83	73	39	50	75	79	91	64	83
No	28	25	20	35	15	25	59	48	24	19	6	35	14
Don't know	0	4	2	2	2	2	2	2	1	2	3	1	3
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

Table A26

**THREAT OF WAR RELATED TO KNOWLEDGE OF PREPARATION MEASURES**

Threat	Have heard or read of preparation measures			Total	
	Yes	No	Don't know	No.	%
	Respondents, %				
Chance of war in 2 years					
Certain - good	77	20	3	35	100
Fifty-fifty	61	37	2	62	100
Some - none	80	19	1	185	100
Chance of attack on Washington					
Good	74	23	3	202	100
Fair	71	20	9	59	100
Poor	67	33	0	39	100
Bomb on Washington					
Yes	78	21	1	188	100
No	66	30	4	76	100
Chance of survival					
Excellent - good	76	22	2	37	100
Fifty-fifty	74	26	0	62	100
Poor - none	71	27	2	200	100

Table A27  
**KNOWLEDGE OF SPECIFIC PREPARATION  
 MEASURES**

[Q. What have you heard or read (that a person ought to do now for his own safety and his family's safety to prepare for an atomic attack?)]

Response	Respondents, %
Stock house with food	53
Fix shelter area	18
Have first-aid kit	16
Build shelter	11
Blankets, candles, gas in car, etc.	8
Battery radio	6
Obtain civil defense information	3
Know about evacuation	1
Other	5
Don't remember	5
Have not heard or read of measures	28
Total <sup>a</sup>	154

<sup>a</sup> Total is more than 100 because of multiple responses.

Table A28  
**KNOWLEDGE OF SHELTER PREPARATION MEASURES RELATED TO AGE, EDUCATION,  
 INCOME, AND AREA OF RESIDENCE**

Shelter preparation measures	Age, years				Education			Income, thous of dollars				Area of residence	
	- 30	31-45	46-60	61+	College	High school	Grade school	-4	4-6	6-8	8+	D.C.	Suburbs
	Respondents, %												
Build shelter	7	8	12	19	12	11	6	8	12	8	14	10	16
Prepare shelter area	17	20	17	17	23	17	8	12	16	23	24	11	20

Table A29

## PREPARATION MEASURES TAKEN

[Q. Have you done any of these things (that a person ought to do now for his own safety and his family's safety to prepare for an atomic attack?)]

Action	Respondents, %
Have taken preparation measures	17
Stock food	(11)
Battery radio	(2)
First aid kit	(3)
Fix shelter area	(2)
Other	(2)
Have taken no preparation measures	50
Have not heard of or can't remember preparation measures	33
Total	100

Table A30

## PREPARATION MEASURES TAKEN RELATED TO AGE, EDUCATION, INCOME, AND AREA OF RESIDENCE

	Age, years				Education			Income, thous of dollars				Area of residence	
	30	31-45	46-60	61+	College	High school	Grade school	-4	4-6	6-8	8+	D.C.	Suburbs
	Respondents, %												
Have taken a preparation measure (N = 51)	14	16	18	12	17	16	9	9	24	13	22	15	19

Table A31

## BATTERY-OPERATED RADIO

(Q. Do you own a portable, battery-operated radio?)

Response	Respondents, %
Yes	30
No	70
Total	100

Table A32

## FIRST-AID TRAINING

(Q. Have you ever had any first-aid training?  
Q. When was the last time you took first aid?)

Response	Respondents, %
Have had first-aid training	53
Within 1 year	(5)
Within 5 years	(10)
5 years or more	(37)
Don't know	(1)
Have had no first-aid training	47
Total	100

Table A33

## KNOWLEDGE OF TREATMENT FOR SERIOUS BURNS

(Q. Do you know the treatment for serious burns?  
Q. What is the treatment for serious burns?)

Response	Respondents, %
Said knew correct treatment	22
Stated treatment correctly	(3)
Stated treatment partly correct	(8)
Stated treatment incorrectly	(11)
Do not remember treatment	28
Not sure if remember treatment	3
Have had no first-aid training	47
Total	100

Table A34

**REASONS WHY PROTECTIVE MEASURES HAVE NOT BEEN  
TAKEN**

[Q. There are many reasons why a person may not have done anything (for his own safety and his family's safety to prepare for an atomic attack, . What are the reasons in your case?)

Response	Respondents, %
Have heard of measures but have taken none	50
Lack of threat	(19)
Useless, threat too great	(9)
Lazy, complacent	(9)
No home space	(5)
No government plan	(1)
Other	(11)
Don't know	(2)
Have taken protective measures	17
Have not heard of or can't remember protective measures	33
Total	100

Table A35

**REASONS FOR LACK OF ACTION RELATED TO THREAT OF WAR**

Threat	No.	Reasons for lack of action		
		Complacency	Lack of threat	Threat too great
		Respondents, %		
Chance of war in 2 years				
Certain - good	35	9	3	9
Fifty-fifty	62	11	15	10
Poor - none	185	9	26	8
No opinion	40	5	8	15
Chance of attack on Washington				
Good	202	8	19	13
Fair	59	10	19	2
Poor	39	8	20	5
Don't know	22	14	14	5
Bomb on Washington				
Yes	188	10	21	11
No	76	7	17	3
Don't know	58	7	16	12
Chance of survival				
Excellent - good	37	11	22	3
Fifty-fifty	62	10	23	2
Poor - none	200	8	17	14
Don't know	23	9	22	4



Table A36  
KNOWLEDGE OF WARNING SIGNALS

(Q. Do you know what the warning signal is which tells you that enemy planes are headed for Washington?)

Response	Respondents, %
Yes	69
No	28
Not sure	3
Total	100

Table A37  
KNOWLEDGE OF WARNING SIGNAL RELATED TO AGE, EDUCATION, AND AREA OF RESIDENCE

Know warning signal	Age, years				Education			Area of residence	
	30	31-45	46-60	61+	College	High school	Grade school	D.C.	Suburbs
	Respondents, %								
Yes	68	70	72	79	71	69	59	57	83
No	29	28	26	31	26	29	33	40	13
Not sure	3	2	2	10	3	2	8	3	4
Total	100	100	100	100	100	100	100	100	100

Table A38  
IDENTIFICATION OF WARNING SIGNAL

(Q. What is the warning signal? Do you know whether it is bells or whistles or what?)

Response	Respondents, %
Correctly identified	26 <sup>a</sup>
Incorrectly identified	58
Does not know sirens	16
Total	100

<sup>a</sup> Figures have been corrected to account for some differences in scoring procedures by interviewers.

Table A39

## AUDIBILITY OF SIRENS AT HOME

(Q 1. Can you hear the air-raid warning sirens in your house with the windows closed?

(Q 2. Do you think the sirens would wake you up if an air-raid warning were sounded at night?)

Response	Respondents, %	
	Q 1.	Q 2.
Yes	65	52
No	19	34
Don't know	16	14
Total	100	100

Table A40

## AUDIBILITY OF SIRENS RELATED TO AREA OF RESIDENCE AND TO AGE

Sirens audible at home with windows closed	Area of residence		Age, years			
	D.C.	Suburbs	- 30	31 - 45	46 - 60	61 +
	Respondents, %					
Yes	65	67	67	64	65	64
No	19	17	16	18	21	19
Don't know	16	16	17	18	14	17
Total	100	100	100	100	100	100

Table A41

## AUDIBILITY OF SIRENS WHEN ASLEEP RELATED TO AREA OF RESIDENCE AND TO AGE

Sirens audible when asleep	Area of residence		Age, years			
	D.C.	Suburbs	- 30	31 - 45	46 - 60	61 +
	Respondents					
Yes	65	67	51	50	52	60
No	19	17	40	37	35	21
Don't know	16	16	9	13	13	19
Total	100	100	100	100	100	100

Table A42

## AUDIBILITY OF SIRENS AT WORK

(Q. Can you hear the air-raid sirens at work?)

Response	Respondents, %
Yes	62
No	4
Don't know	4
Don't work	30
Total	100

Table A43

## PROTECTIVE ACTION WHEN SIRENS SOUND

(Q. If you heard the air-raid warning sirens sounding this evening when you were at home, what would you do first?)

Response	Respondents, %
Take shelter	48
Get more information	12
Don't know	8
Disbelieve it	8
Seek family	7
Evacuate city	6
Do nothing	4
Other	10
Total <sup>a</sup>	103

<sup>a</sup> Total is more than 100 because of multiple responses.

Table A44

**PROTECTIVE ACTION WHEN SIRENS SOUND RELATED TO AGE, EDUCATION, AND AREA OF RESIDENCE**

Protective action	Age, years				Education			Area of residence	
	- 30	31 - 45	46 - 60	61 +	College	High school	Grade school	D.C.	Suburbs
	Respondents, %								
Get more information	12	15	8	17	15	9	14	9	16
Seek shelter	51	49	48	46	42	54	51	46	51
Evacuate city	9	6	4	6	11	4	0	4	9
Seek family	9	8	5	2	10	7	0	9	4
Other	12	11	9	8	9	9	16	15	4
Don't know	5	4	9	19	4	9	16	11	4
Disbelieve	7	9	12	6	9	9	4	7	10
Do nothing	0	2	9	8	7	2	2	4	5
Total <sup>a</sup>	105	104	104	106	107	103	103	105	103

<sup>a</sup> Total is more than 100 because of multiple responses.

Table A45

**INFORMATION SOURCE WHEN SIRENS SOUND**

Q. If you wished to get more information about what was going on and what to do (when the warning sounded), how would you get it?

Response	Respondents, %
Radio	53
Telephone	22
Ask others	3
Ask police or warden	3
Wouldn't try	3
Other	5
Don't know	12
Total <sup>a</sup>	101

<sup>a</sup> Total is more than 100 because of multiple responses.

Table A46

INFORMATION SOURCE WHEN SIRENS SOUND RELATED TO AGE, EDUCATION, AND AREA  
OF RESIDENCE

Source of information	Age, years				Education			Area of residence	
	- 30	31 - 45	46 - 60	61 +	College	High school	Grade school	D.C.	Suburbs
	Respondents, %								
Telephone	18	23	23	25	21	21	27	23	21
Radio	61	60	49	36	62	53	30	47	60
Other	7	2	7	6	4	6	6	7	3
Don't know	11	7	14	21	6	12	27	13	11
Ask others	1	3	2	8	3	2	6	4	2
Ask police	3	6	2	0	2	4	4	4	2
Wouldn't try	3	2	3	4	5	2	0	4	1
Total <sup>a</sup>	104	103	100	100	103	100	100	102	100

<sup>a</sup> Total is more than 100 because of multiple responses.

Table A47

KNOWLEDGE OF CONELRAD

(Q. If you tried the radio where would you tune it?)

Response	Respondents, %
Shows knowledge of CONELRAD (640 and 1240)	43
Spin dial	13
Tune in local station	24
Don't know	20
Total	100

Table A48

## KNOWLEDGE OF CONELRAD RELATED TO AGE AND TO EDUCATION

Knowledge of CONELRAD	Age, years				Education		
	- 30	31 - 45	46 - 60	61 +	College	High school	Grade school
	Respondents, %						
Knows CONELRAD	54	52	38	17	50	43	24
Would spin dial	12	9	15	21	17	11	10
Tune local station	22	28	25	16	19	28	27
Don't know	12	11	22	46	14	18	39
Total	100	100	100	100	100	100	100

Table A49

## KNOWLEDGE OF CONELRAD RELATED TO KNOWLEDGE OF PROTECTIVE MEASURES

Knowledge of protective measures	No.	Knowledge of CONELRAD				Total %
		Knows CONELRAD	Spin dial	Tune local station	Don't know	
		Respondents, %				
Yes	232	53	14	20	13	100
No	83	16	11	36	37	100
Don't know	7	29	29	29	13	100

Table A50

## WILLINGNESS TO HAVE HOME WARNING DEVICE

(Q. Several types of small home warning devices have been developed. If you had one, it would warn you when the enemy attack was discovered. Would you want one of these?)

Response	Respondents, %
Yes	58
No	35
Don't know	7
Total	100

Table A51

## WILLINGNESS TO BUY \$5 HOME WARNING DEVICE

[Q. Would you pay \$5 for one (a home warning device) ?]

Response	Respondents, %
Yes	40
No	50
Don't know	10
Total	100

Table A52

WILLINGNESS TO HAVE HOME WARNING DEVICE RELATED TO AGE, EDUCATION, INCOME,  
AND AREA OF RESIDENCE

Willing to have home warning device	Age, years				Education			Income, thous of dollars				Area of residence	
	30	31-45	46-60	61+	College	High school	Grade school	-4	4-6	6-8	8+	D.C.	Suburbs
	Respondents, %												
Yes	67	58	52	54	51	60	72	61	60	50	57	61	55
No	25	36	39	40	38	36	22	34	33	38	36	34	36
Don't know	8	6	9	6	11	4	6	5	7	12	7	5	9
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

Table A53

WILLINGNESS TO BUY \$5 HOME WARNING DEVICE RELATED TO AGE, EDUCATION, INCOME,  
AND AREA OF RESIDENCE

Willing to buy home warning device	Age, years				Education			Income, thous of dollars				Area of residence	
	30	31-45	46-60	61+	College	High school	Grade school	-4	4-6	6-8	8+	D.C.	Suburbs
	Respondents, %												
Yes	49	43	39	23	42	40	37	33	47	37	45	38	43
No	38	49	50	67	46	51	55	59	42	48	45	52	46
Don't know	13	8	11	10	12	9	8	8	11	15	10	10	11
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

Table A54

## WILLINGNESS TO HAVE HOME WARNING DEVICE RELATED TO CHANCE OF SURVIVAL

Chance of survival	No.	Willing to have home warning device			Total, %
		Yes	No	Don't know	
		Respondents, %			
Excellent - good	37	43	51	6	100
Fifty-fifty	62	60	34	6	100
Poor - none	200	61	32	7	100

Table A55

## WILLINGNESS TO BUY \$5 HOME WARNING DEVICE RELATED TO CHANCE OF SURVIVAL

Chance of survival	No.	Willing to buy \$5 home warning device			Total, %
		Yes	No	Don't know	
		Respondents, %			
Excellent -good	37	35	62	3	100
Fifty-fifty	62	44	47	9	100
Poor - none	200	42	48	10	100

Table A56

## WILLINGNESS TO BUY \$5 HOME WARNING DEVICE RELATED TO EXPRESSED KNOWLEDGE OF WARNING SIGNAL

Thinks knows warning signal	No.	Willing to buy \$5 home warning device			Total, %
		Yes	No	Don't know	
		Respondents, %			
Yes	220	45	45	10	100
No	91	31	57	12	100



Table A57

## WILLINGNESS TO BUY \$35 RADIATION DETECTION DEVICE

(Q. If an atomic attack came, it would be important for you to be able to tell how much radiation you were being exposed to. Would you buy an instrument costing about \$35 which would measure radiation?)

Response	Respondents, %
Yes	18
No	73
Don't know	9
Total	100

Table A58

## WILLINGNESS TO BUY \$35 RADIATION DETECTION DEVICE RELATED TO AGE, EDUCATION, INCOME, AND AREA OF RESIDENCE

Willing to buy radiation detection device	Age, years				Education			Income, thous of dollars				Area of residence	
	-30	31-45	46-60	61+	College	High school	Grade school	-4	4-6	6-8	8+	D.C.	Suburbs
	Respondents, %												
Yes	24	19	16	13	18	21	12	18	20	21	15	23	12
No	63	71	77	81	73	70	76	76	70	69	72	70	75
Don't know	13	10	7	6	9	9	12	6	10	10	13	7	13
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

Table A59

## WILLINGNESS TO BUY \$35 RADIATION DETECTION DEVICE RELATED TO WILLINGNESS TO BUY \$2 CIVIL DEFENSE BOOK, HAVE HOME WARNING DEVICE, AND BUY \$5 HOME WARNING DEVICE

Action	No.	Willing to buy \$35 radiation detection device			Total, %
		Yes	No	Don't know	
		Respondents, %			
Willing to buy civil defense book					
Yes	139	29	60	11	100
No	160	9	85	6	100
Willing to have home warning device					
Yes	187	25	65	10	100
No	112	7	88	5	100
Willing to buy \$5 warning device					
Yes	130	34	53	13	100
No	159	6	90	4	100

Table A60

## CONSTRUCTION OF HOME SHELTERS

(Q. Many people in Washington area have not yet built home shelters. Is this true in your case?)

Response	Respondents, %
Yes	54
Lives in apartment house, rents home, rooms	46
Total	100

Table A61

## AREA TO CONSTRUCT HOME SHELTER RELATED TO AGE, EDUCATION, INCOME, AND AREA OF RESIDENCE

Type of residence	Age, years				Education			Income, thous of dollars				Area of residence	
	-30	31-45	46-60	61+	College	High school	Grade school	-4	4-6	6-8	8+	D.C.	Suburbs
	Respondents, %												
Owens home	32	60	64	56	56	53	51	41	41	62	70	41	71
Rents, rooms, or lives in apartment	68	40	36	44	44	47	49	59	59	38	30	59	29
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

Table A62

## REASONS FOR NOT BUILDING HOME SHELTER

(Q. There are many reasons why a person may not have built a home shelter. What are some of the reasons in your case?)

Response	Respondents, %
Lack of threat	23
Lack of money	21
Threat too great	17
Basement adequate	10
Haven't thought about it	10
Laziness	10
Lack of space	5
Other	14
Don't know	3
Total <sup>a</sup>	113
Total respondents	(N = 174)

<sup>a</sup> Total is more than 100 because of multiple responses.

Table A63

REASONS HOME OWNERS HAVE NOT BUILT HOME SHELTERS RELATED TO AGE, EDUCATION, INCOME, AND AREA OF RESIDENCE<sup>a</sup>

Reasons	Age, years				Education			Income, thous of dollars				Area of residence	
	-30	31-45	46-60	61+	College	High	Grade	-4	4-6	6-8	8+	D.C.	Suburbs
	Respondents, %												
Lack of threat	17	27	20	26	25	25	8	19	15	28	28	16	28
Lack of money	29	19	20	19	18	22	27	29	24	22	12	30	14
No space	8	6	3	4	1	7	12	5	10	6	2	7	4
Laziness	4	8	15	7	8	12	12	10	12	0	13	8	11
Other	17	14	12	15	15	16	4	5	19	9	18	15	13
Don't know	0	3	5	4	0	6	8	5	5	0	3	4	3
Adequate basement	12	16	7	4	15	9	0	7	5	9	17	8	12
Threat too great	4	12	24	22	25	7	15	7	12	28	20	14	19
Haven't thought of it	17	9	10	7	8	10	19	19	10	12	3	15	7
Total <sup>b</sup>	108	114	116	108	115	114	105	106	112	114	116	117	111

<sup>a</sup> Total respondents N = 174.

<sup>b</sup> Total is more than 100 because of multiple responses.

Table A64

## WILLINGNESS TO BUILD \$100 FAMILY SHELTER

(Q. A design for an underground family shelter is now being developed where the whole cost of building and supplying the shelter would be about \$100 if you or some member of your family built it yourself. Would you build such a shelter?)

Response	Total sample, %	Subgroup with space for building, %
Yes	12	24
No	30	59
Don't know	9	17
Lacks space, lives in apt., rooms, rents	49	—
Total	100	100
Total respondents (N = 322)		(N = 165)

Table A65

## WILLINGNESS TO BUILD \$200 FAMILY SHELTER

[Q. Would you build this shelter (family shelter) if you paid someone else to do the labor and cost about \$200?]

Response	Total sample, %	Subgroup with space for building, %
Yes	6	12
No	38	74
Don't know	7	14
Lacks space, lives in apt., rents, rooms	49	—
Total	100	100
Total respondents (N = 322)		(N = 165)

Table A66

**WILLINGNESS TO BUILD \$100 HOME SHELTER RELATED TO AGE, EDUCATION, INCOME,  
AND AREA OF RESIDENCE**

(N = 165, those who own homes and have space)

Would build \$100 shelter	Age, years				Education			Income, thous of dollars				Area of residence	
	- 30	31 - 45	46 - 60	61 +	College	High school	Grade school	- 4	4 - 6	6 - 8	8 +	D.C.	Suburbs
	Respondents, %												
Yes	28	30	25	8	26	25	17	15	27	17	32	24	24
No	36	55	63	77	59	58	61	70	49	66	54	64	55
Don't know	36	15	12	15	15	17	22	15	24	17	14	12	21
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

Table A67

**WILLINGNESS TO BUILD \$200 HOME SHELTER RELATED TO AGE, EDUCATION, INCOME,  
AND AREA OF RESIDENCE**

(N = 165, those who own homes and have space)

Would build \$200 shelter	Age, years				Education			Income, thous of dollars				Area of residence	
	- 30	31 - 45	46 - 60	61 +	College	High school	Grade school	- 4	4 - 6	6 - 8	8 +	D.C.	Suburbs
	Respondents, %												
Yes	0	17	12	8	12	14	4	3	19	3	17	15	9
No	68	73	76	77	74	72	79	82	60	90	70	72	75
Don't know	32	10	12	15	14	14	17	15	21	7	13	13	16
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

Table A68

**WILLINGNESS TO BUILD \$100 HOME SHELTER RELATED TO CHANCE OF SURVIVAL**

Chance of survival	No.	Willing to build \$100 home shelter			Total, %
		Yes	No	Don't know	
		Respondents, %			
Excellent - good	21	43	43	14	100
Fifty-fifty	31	32	49	19	100
Poor - none	98	20	64	16	100

Table A69

**WILLINGNESS TO BUILD \$100 HOME SHELTER RELATED TO KNOWLEDGE OF PROTECTIVE MEASURES**

Know protective measures	No.	Willing to build \$100 home shelter			Total, %
		Yes	No	Don't know	
		Respondents, %			
Yes	125	26	61	13	100
No	37	19	51	30	100

Table A70

**WILLINGNESS TO BUILD \$100 HOME SHELTER RELATED TO STATED ACTION WHEN WARNING SIGNAL SOUNDS**

Action	No.	Willing to build \$100 home shelter			Total, %
		Yes	No	Don't know	
		Respondents, %			
Get more information	20	15	65	20	100
Take shelter	79	32	52	16	100
Evacuate city	11	18	64	18	100
Seek family	14	21	57	22	100
Other	18	11	67	22	100
Don't know	15	13	80	7	100
Disbelieve	12	25	58	17	100
Do nothing	5	0	100	0	100

Table A71

**WILLINGNESS TO BUILD \$100 HOME SHELTER RELATED TO WILLINGNESS TO BUY \$2 CIVIL DEFENSE BOOK, \$5 HOME WARNING DEVICE, \$35 RADIATION DETECTION DEVICE, AND \$200 HOME SHELTER**

Action	No.	Willing to build \$100 home shelter			Total, %
		Yes	No	Don't know	
		Respondents, %			
Willing to buy \$2 civil defense book					
Yes	72	37	39	24	100
No	78	15	77	8	100
Willing to buy \$5 home warning device					
Yes	67	43	43	14	100
No	81	14	70	16	100
Willing to buy \$35 radiation detection device					
Yes	34	44	41	15	100
No	113	18	68	14	100
Willing to build \$200 home shelter					
Yes	19	63	37	0	100
No	122	21	73	6	100

Table A72

## SUPPORT OF FEDERAL SHELTER SYSTEM

(Q. It has been proposed that the federal government should build underground shelters in all cities and other target areas in the U.S. Each shelter would hold up to several thousand people for several weeks. Would you favor such a shelter program if it meant an increase for several years in your federal taxes of about \$10 to \$90 depending on your income?)

Response	Respondents, %
Yes	69
No	23
Don't know	8
Total	100

Table A73

## SUPPORT OF FEDERAL SHELTER SYSTEM RELATED TO AGE, EDUCATION, INCOME, AND AREA OF RESIDENCE

Favor federal shelter system	Age, years				Education			Income, thous of dollars				Area of residence	
	- 30	31 - 45	46 - 60	61 +	College	High school	Grade school	- 4	4 - 6	6 - 8	8 +	D.C.	Suburbs
	Respondents, %												
Yes	78	67	71	54	67	70	69	72	69	67	65	77	58
No	13	26	20	35	25	22	19	24	20	29	21	17	31
Don't know	9	7	9	11	8	8	12	4	11	4	14	6	11
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

Table A74

**SUPPORT OF FEDERAL SHELTER SYSTEM RELATED TO WILLINGNESS TO BUY \$2 CIVIL DEFENSE BOOK, HAVE HOME WARNING DEVICE, BUY \$35 RADIATION DETECTION DEVICE, AND BUILD \$100 HOME SHELTER**

Actions	No.	Support federal shelter system			Total, %
		Yes	No	Don't know	
		Respondents, %			
Willing to buy \$2 civil defense book					
Yes	139	78	11	11	100
No	160	61	33	6	100
Willing to have home warning device					
Yes	187	73	17	10	100
No	112	63	32	5	100
Willing to buy \$35 radiation detection device					
Yes	59	83	10	7	100
No	233	64	28	8	100
Willing to build \$100 home shelter					
Yes	40	80	13	7	100
No	97	53	40	7	100
Don't know	28	54	25	21	100
No space	157	78	15	7	100

Table A75

**WILLINGNESS TO TAKE 10-HR CIVIL DEFENSE COURSE**

(Q. Would you take a 10-hour basic civil defense course?)

Response	Respondents, %
Yes	54
No	36
Don't know	10
Total	100

Table A76

**WILLINGNESS TO TAKE 10-HR CIVIL DEFENSE COURSE RELATED TO AGE, EDUCATION, INCOME AND AREA OF RESIDENCE**

Willing to take 10-hr civil defense course	Age, years				Education			Income, thous of dollars				Area of residence	
	-30	31-45	46-60	61+	College	High school	Grade school	-4	4-6	6-8	8+	D.C.	Suburbs
	Respondents, %												
Yes	61	60	50	40	59	54	39	46	64	52	56	54	55
No	30	29	38	54	30	34	55	45	28	37	31	38	33
Don't know	9	11	12	6	11	12	6	9	8	11	13	8	12
Total	100	100	100	100	100	100	100	100	100	100	100	100	100



Table A77

## WILLINGNESS TO TAKE 10-HR CIVIL DEFENSE COURSE RELATED TO THREAT OF WAR

Threat	No.	Willing to take 10-hr civil defense course			Total, %
		Yes	No	Don't know	
		Respondents, %			
Chance of war in 2 years					
Certain - good	35	71	23	6	100
Fifty-fifty	62	63	31	6	100
Some - no chance	185	50	36	14	100
Chance D.C. will be attacked					
Good	202	50	37	13	100
Fair	59	63	32	5	100
Not much	39	67	31	2	100
Chance of survival					
Excellent -good	37	62	32	6	100
Fifty-fifty	62	55	40	5	100
Poor - no chance	200	53	34	13	100

Table A78

## APPROVAL OF COMPULSORY CIVIL DEFENSE WORK

(Q. Would you approve or disapprove of a plan to require every man and woman to spend an average of one hour a week in civil defense work?)

Response	Respondents, %
Approve	65
Disapprove	27
Undecided	8
Total	100

Table A79

## APPROVAL OF COMPULSORY CIVIL DEFENSE WORK RELATED TO AGE, EDUCATION, INCOME, AND AREA OF RESIDENCE

Approve civil defense work 1 hr per week	Age, years				Education			Income, thous of dollars				Area of residence	
	- 30	31 - 45	46 - 60	61 +	College	High school	Grade school	- 4	4 - 6	6 - 8	8 +	D.C.	Suburbs
	Respondents, %												
Yes	59	64	70	65	51	74	78	70	68	58	58	72	55
No	32	30	22	27	37	22	18	26	22	29	35	23	33
Can't decide	9	5	8	8	12	4	4	4	10	13	7	5	12
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

Table A80

**SUPPORT OF COMPULSORY CIVIL DEFENSE WORK 1 HR PER WEEK  
RELATED TO THREAT OF WAR**

Threat	No.	Support compulsory civil defense work 1 hr per week			Total, %
		Yes	No	Don't know	
		Respondents, %			
Chance of war in 2 years					
Certain - good	35	83	17	0	100
Fifty-fifty	62	74	21	5	100
Some - no chance	185	61	29	10	100
Chance of survival					
Excellent - good	37	59	35	6	100
Fifty-fifty	62	63	29	8	100
Poor - no chance	200	69	23	8	100

Table A81

**WILLINGNESS TO TAKE FIRST-AID COURSE**

[Q. Would you take a 7- to 10-hr refresher course in first-aid (if the person has taken a first-aid course)? Would you take a 12- to 15-hr first-aid course?]

Response	Respondents, %
Yes	63
No	33
Don't know	4
Total	100

Table A82

**WILLINGNESS TO TAKE FIRST-AID COURSE RELATED TO AGE, EDUCATION, INCOME, AND  
AREA OF RESIDENCE**

Willing to take first-aid course	Age, years				Education			Income, thous of dollars				Area of residence	
	- 30	31 - 45	46 - 60	61 +	College	High school	Grade school	- 4	4 - 6	6 - 8	8 +	D.C.	Suburbs
	Respondents, %												
Yes	75	70	57	42	63	68	51	55	74	63	61	65	61
No	24	27	36	52	33	28	43	39	24	33	34	32	33
Don't know	1	3	7	6	4	4	6	6	2	4	5	3	6
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

Table A83

**EXPERIENCE WITH FIRST-AID COURSE RELATED TO WILLINGNESS TO AGAIN TAKE FIRST-AID COURSE**

Have had first-aid training course	No.	Willing to take first-aid course			Total, %
		Yes	No	Don't know	
		Respondents, %			
Yes	171	68	29	3	100
No	151	58	36	6	100

Table A84

**WILLINGNESS TO TAKE 10-HR CIVIL DEFENSE COURSE RELATED TO WILLINGNESS TO TAKE FIRST-AID COURSE**

Willing to take first-aid course	No.	Willing to take 10-hr civil defense course			Total, %
		Yes	No	Don't know	
		Respondents, %			
Yes	203	80	12	8	100
No	105	11	84	5	100

Table A85

**SUPPORT OF COMPULSORY CIVIL DEFENSE WORK 1 HR PER WEEK RELATED TO KNOWLEDGE OF LOCAL CIVIL DEFENSE ACTIVITIES AND TO WILLINGNESS TO TAKE FIRST-AID COURSE**

Knowledge, willingness	No.	Support of compulsory civil defense work 1 hr per week			Total, %
		Yes	No	Don't know	
		Respondents, %			
Knowledge of local civil defense activities					
Yes	66	55	41	4	100
No	249	67	24	9	100
Willing to take first-aid course					
Yes	203	71	23	6	100
No	105	52	36	12	100

Table A86

## MEDIA BY WHICH CIVIL DEFENSE INFORMATION HAS BEEN RECEIVED

(Q. From what sources do you recall having received civil defense information?)

Response	Respondents, %
Pamphlets	34
Newspapers, magazines	22
TV	20
Radio	19
Personal contact	17
At work or school	8
Lectures, movies, exhibits, etc.	5
Other	3
Don't know	18
Total <sup>a</sup>	146

<sup>a</sup> Total is more than 100 because of multiple responses.

Table A87

## SOURCE OF CIVIL DEFENSE INFORMATION RELATED TO AGE, EDUCATION, INCOME, AND AREA OF RESIDENCE

Source of information	Age, years				Education			Income, thous of dollars				Area of residence	
	-30	31-45	46-60	61+	College	High school	Grade school	-4	4-6	6-8	8+	D.C.	Suburbs
	Respondents, %												
Radio	28	18	15	15	16	22	20	21	16	23	17	20	18
TV	28	20	20	13	15	28	16	19	14	29	23	20	21
Newspapers, magazines	18	19	28	23	39	19	10	17	18	25	30	21	23
Pamphlets	41	40	26	23	43	32	12	21	36	42	41	29	40
Personal contact	16	17	16	19	22	16	4	10	19	13	24	13	22
Other	4	3	3	4	1	5	6	2	6	4	2	5	1
None, don't know	11	17	14	38	10	15	47	34	13	10	8	20	15
At work or school	12	8	9	4	8	11	2	8	10	8	8	13	3
Lectures, movies, meetings	8	3	5	2	5	6	0	6	7	4	1	6	3
Total <sup>a</sup>	166	145	136	141	159	154	117	138	139	158	154	147	146

<sup>a</sup> Total is more than 100 because of multiple responses.

Table A88

**SOURCE OF CIVIL DEFENSE INFORMATION RELATED TO KNOWLEDGE OF PROTECTIVE MEASURES, STATED KNOWLEDGE OF WARNING SIGNALS, KNOWLEDGE OF RADIO, AND KNOWLEDGE OF CONELRAD**

Knowledge sources	Source of civil defense information received										Total % <sup>a</sup>
	No.	Radio	TV	News-papers, magazines	Pam-phlets	Personal contact	Other	None	Work, school meetings	Lectures	
											Respondents, %
Know protective measures											
Yes	232	22	24	23	40	20	3	9	9	5	155
No	83	12	13	20	14	10	6	40	6	4	125
Stated knew warning signals											
Yes	220	16	19	25	40	20	3	15	7	3	148
No	91	25	23	15	20	9	4	25	10	8	139
Source of information when attacked											
Telephone	71	25	27	28	15	13	7	15	4	3	137
Radio	171	20	21	20	44	22	1	9	9	6	152
Knowledge of CONELRAD											
Know											
CONELRAD	139	24	24	23	44	18	3	7	12	7	162
Spin dial	43	19	19	21	27	21	0	23	5	5	140
Local station	77	17	16	16	30	19	8	25	4	3	138

<sup>a</sup> Total is more than 100 because of multiple responses.

Table A89

**PREFERRED MEDIUM FOR CIVIL DEFENSE INFORMATION**

(Q. What would be the best way for civil defense authorities to get information to you about civil defense?)

Response	Respondents, %
Pamphlets and posters	39
TV	23
Radio	20
Courses, meetings, lectures	16
Personal contact	14
Newspapers, magazines	12
At work, school	4
Other	5
Don't know or wants no information	2
Total <sup>a</sup>	135

<sup>a</sup> Total is more than 100 because of multiple responses.

Table A90

**PREFERRED MEDIUM FOR CIVIL DEFENSE INFORMATION RELATED TO AGE, EDUCATION,  
INCOME, AND AREA OF RESIDENCE**

Medium	Age, years				Education			Income, thous of dollars				Area of residence	
	-30	31-45	46-60	61+	College	High school	Grade school	-4	4-6	6-8	8+	D.C.	Suburbs
	Respondents, %												
Radio	21	18	17	29	20	19	25	23	16	25	19	16	26
TV	26	25	21	19	24	23	20	18	18	25	33	20	27
Newspapers, magazines	11	13	13	10	17	8	10	9	13	15	13	12	13
Pamphlets	50	41	28	35	40	43	24	42	43	31	34	43	33
Personal contact	13	11	16	15	10	16	18	17	13	8	14	14	13
Other	7	5	8	0	4	7	4	3	7	2	8	6	4
Courses, meetings	15	10	21	21	20	12	16	12	18	21	15	14	18
Work, school	3	6	5	2	6	3	4	2	4	6	7	5	4
Don't know, wants no information	0	3	3	4	3	1	6	3	4	0	3	2	4
Total <sup>a</sup>	146	132	132	135	144	132	127	129	136	133	146	132	142

<sup>a</sup> Total is more than 100 because of multiple responses.

Table A91

**PREFERRED MEDIUM FOR CIVIL DEFENSE INFORMATION RELATED TO MEDIUM BY WHICH  
CIVIL DEFENSE INFORMATION HAS BEEN RECEIVED IN PAST**

Medium of civil defense information in past	No.	Preferred Medium									Total % <sup>a</sup>
		Radio	TV	News- papers, maga- zines	Pam- phlets	Personal contact	Other	Courses, meetings	Work, school	Don't know wants no information	
		Respondents, %									
Radio	61	31	31	15	41	13	2	16	2	0	151
TV	66	21	41	6	36	17	2	14	3	2	142
Newspapers, magazines	71	18	23	24	41	14	4	13	1	0	138
Pamphlets	108	18	24	7	53	9	4	17	4	2	138
Personal contact	54	26	35	13	30	28	9	13	4	2	160
Other	11	9	18	0	55	18	0	18	9	0	127
None, don't know	57	30	11	12	19	18	4	19	4	9	126
Work, school	27	7	15	4	41	7	11	19	22	0	126
Lectures, meetings, movies	15	13	27	7	40	0	0	27	0	7	121

<sup>a</sup> Total is more than 100 because of multiple responses.

Table A92

## DESIRE FOR CIVIL DEFENSE INFORMATION

(Q. Is there anything about civil defense or atomic warfare you would like to know more about? What?)

Response	Respondents, %
Yes	66
General information on civil defense and self-protection	(78)
Location and use of shelters	(5)
Radiation, fallout	(4)
Evacuation plans	(2)
Warning signals	(2)
Other	(9)
No	34
Total	100

Table A93

## DESIRE FOR CIVIL DEFENSE INFORMATION RELATED TO AGE, EDUCATION, INCOME, AND AREA OF RESIDENCE

Want civil defense information	Age, years				Education			Income, thous of dollars				Area of residence	
	- 30	31-45	46-60	61+	College	High school	Grade school	-4	4-6	6-8	8+	D.C.	Suburbs
	Respondents, %												
Yes	74	72	62	44	70	63	59	61	74	54	70	67	63
No	23	28	38	56	30	37	41	39	26	46	30	33	37
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

Table A94

## WILLINGNESS TO BUY \$2 CIVIL DEFENSE BOOK

(Q. Would you buy a book costing \$2.00 which would contain information about probable kinds of enemy attack on Washington, our defenses against attack, and things your community and you yourself can do to increase your chances of survival?)

Response	Respondents, %
Yes	43
No	50
Don't know	7
Total	100

Table A95

**WILLINGNESS TO BUY \$2 CIVIL DEFENSE BOOK RELATED TO AGE, EDUCATION, INCOME, AND AREA OF RESIDENCE**

Willing to buy book	Age, years				Education			Income, thous of dollars				Area of residence	
	- 30	31 - 45	46 - 60	61 +	College	High school	Grade school	- 4	4 - 6	6 - 8	8 +	D.C.	Suburbs
	Respondents, %												
Yes	57	44	41	23	37	50	41	47	51	25	42	47	38
No	39	47	51	69	58	43	45	46	41	71	50	48	53
Don't know	4	9	8	8	5	7	14	7	8	4	8	5	9
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

Table A96

**WILLINGNESS TO BUY \$5 HOME WARNING DEVICE RELATED TO WILLINGNESS TO BUY \$2 CIVIL DEFENSE BOOK**

Willing to buy book	Number	Willing to buy \$5 home warning device			Total, %
		Yes	No	Don't know	
		Respondents, %			
Yes	139	65	27	8	100
No	160	21	69	10	100

Table A97

**SOURCE OF CIVIL DEFENSE INFORMATION RELATED TO WILLINGNESS TO BUY \$2 CIVIL DEFENSE BOOK**

Willing to buy book	No.	Source of civil defense information									Total, % <sup>a</sup>
		Radio	TV	News-papers, maga-zines	Pam-phlets	Personal contact	Other	None	Work, school	Lectures, meetings	
		Respondents, %									
Yes	139	17	23	22	47	15	4	17	9	2	156
No	160	20	20	24	31	17	3	17	9	6	147

<sup>a</sup> Total is more than 100 because of multiple responses.



Table A98

## OPINION OF CIVIL DEFENSE

(Q. What is your opinion of civil defense?)

Response	Respondents, %
Favorable comments on purpose and/or organization of civil defense	64
Unfavorable comments on purpose and/or organization of civil defense	17
No opinion, lacks any information	19
Total	100

Table A99

## OPINION OF CIVIL DEFENSE RELATED TO THREAT OF WAR

Threat	No.	Opinion of civil defense			Total, %
		Favorable	Unfavorable	No opinion	
		Respondents, %			
Chance of war in 2 years					
Certain - good	35	74	20	6	100
Fifty-fifty	62	71	10	19	100
Some - no chance	185	64	18	18	100
Bomb on Washington					
Yes	188	60	21	19	100
No	76	71	14	15	100
Chance of survival					
Excellent - good	37	68	19	13	100
Fifty-fifty	62	78	11	11	100
Poor - no chance	200	61	19	20	100

Table A100

## OPINION OF CIVIL DEFENSE RELATED TO AGE, EDUCATION, INCOME, AND AREA OF RESIDENCE

Opinion	Age, years				Education			Income, thous of dollars				Area of residence	
	- 30	31-45	46-60	61 +	College	High school	Grade school	-4	4-6	6-8	8+	D.C.	Suburbs
	Respondents, %												
Favorable comments on civil defense	71	61	63	63	65	70	49	63	65	63	65	65	64
Unfavorable comments on civil defense	16	15	21	14	24	12	8	9	17	25	21	16	18
No opinion	13	24	16	23	11	18	43	28	18	12	14	19	18
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

Table A101

**OPINION OF CIVIL DEFENSE RELATED TO KNOWLEDGE OF PROTECTIVE MEASURES AND  
LOCAL CIVIL DEFENSE ACTIVITIES, SUPPORT OF FEDERAL SHELTER PROGRAM AND  
COMPULSORY CIVIL DEFENSE WORK 1 HR PER WEEK, AND WILLINGNESS TO TAKE 10-HR  
CIVIL DEFENSE COURSE**

Response	No.	Opinion of civil defense			Total, %
		Favorable	Unfavorable	No opinion	
		Respondents, %			
Knowledge of protective measures					
Yes	232	67	19	14	100
No	83	57	11	32	100
Knowledge of local civil defense activities					
Yes	66	71	15	14	100
No	249	62	18	20	100
Favor federal shelter system					
Yes	221	68	15	17	100
No	74	55	20	25	100
Favor civil defense work 1 hr per week					
Yes	208	65	15	20	100
No	89	57	23	20	100
Willing to take 10-hr civil defense course					
Yes	174	67	13	20	100
No	115	64	18	18	100

Table A102

**KNOWLEDGE OF LOCAL CIVIL DEFENSE ACTIVITIES**

**Q. Have you heard or read anything about what civil defense officials are doing or planning to do in this city (county)? What have you heard or read?**

Response	Respondents, %
Yes	20
Evacuation of officials	(18)
Shelter plans	(15)
Meetings and courses	(11)
General civil defense actions at attack time	(18)
General comments on civil defense organization	(9)
Vague and inappropriate answers	(15)
Do not remember	(24)
No	78
Don't know	2
Total	100

Table A103

**KNOWLEDGE OF LOCAL CIVIL DEFENSE ACTIVITIES RELATED TO AGE, EDUCATION, INCOME,  
AND AREA OF RESIDENCE**

Knows of local civil defense activities	Age, years				Education			Income, thous of dollars				Area of residence	
	- 30	31 - 45	46 - 60	61 +	College	High school	Grade school	- 4	4 - 6	6 - 8	8 +	D.C.	Suburbs
	Respondents, %												
Yes	20	21	22	19	25	19	12	19	25	17	20	28	11
No	80	77	75	79	74	77	88	80	72	83	76	69	88
Don't know	0	2	3	2	1	4	0	1	3	0	4	3	1
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

Table A104

**KNOWLEDGE OF LOCAL CIVIL DEFENSE ACTIVITIES RELATED TO AGE, EDUCATION, AND  
AREA OF RESIDENCE**

(N = 66, Those who had heard of local civil defense activities)

Activity	Age, years				Education			Area of residence	
	- 30	31 - 45	46 - 60	61 +	College	High school	Grade school	D.C.	Suburbs
	Respondents, %								
Evacuation of officials	33	18	15	0	29	8	0	39	9
Shelter plans	20	14	15	11	11	24	0	32	9
Meetings, courses	13	14	10	0	11	12	0	14	28
Civil defense organization	0	18	0	22	6	12	17	21	0
Civil defense actions when attacked	27	23	15	0	14	24	17	28	36
Vague comments	20	9	15	22	11	20	17	25	33
Do not remember	13	18	30	45	29	12	49	43	36
Total <sup>a</sup>	126	114	100	100	111	112	100	202	146

<sup>a</sup> Total is more than 100 because of multiple responses.

Table A105

## KNOWLEDGE OF LOCAL CIVIL DEFENSE ACTIVITIES RELATED TO THREAT OF WAR

Opinion on	No.	Know about local civil defense activities			Total, %
		Yes	No	Not sure	
		Respondents, %			
Chance of war in 2 years					
Certain - good	35	29	69	2	100
Fifty-fifty	62	14	86	0	100
Some - no chance	185	23	76	1	100
Chance D.C. will be attacked					
Good	202	20	78	2	100
Fair	59	29	69	2	100
Not much	39	15	85	0	100
Bomb on Washington					
Yes	188	25	73	2	100
No	76	20	80	0	100
Chance of survival					
Excellent - good	37	32	65	3	100
Fifty-fifty	62	29	68	3	100
Poor - none	200	16	83	1	100

Table A106

## KNOWLEDGE OF LOCAL CIVIL DEFENSE ACTIVITIES RELATED TO KNOWLEDGE OF FALLOUT, PROTECTIVE MEASURES, AND CONELRAD

Response	No.	Have heard of local civil defense activities			Total, %
		Yes	No	Don't know	
		Respondents, %			
Have heard of fallout					
Yes	241	25	73	2	100
No	70	6	90	4	100
Have heard of protective measures					
Yes	232	24	73	3	100
No	83	10	88	2	100
Knowledge of CONELRAD					
Knows CONELRAD	139	30	69	1	100
Spin dial	43	14	84	2	100
Local station	77	13	87	0	100

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